

Data Log Messages

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Introduction

Data log messages are stored in the compact flash memory of IntelliRupter. Messages are time-stamped and displayed chronologically.

This instruction sheet is used with **IRInstaller-1.6.x** and **HMI Screens 1.6.x**. The “x” can indicate any number from 0 to 255. Other related software component version information is found on the *Setup > General > Revisions* screen. **IRInstaller-1.6.x.exe** is the name of the installer file on the IntelliRupter CD and available at the S&C Automation Information Center.

The event description of a data log message can have up to four data entries “Data 1” through “Data 4” describing the event and the action(s) taken, for example, “Next Operation in Test Sequence.” In this instance, Data 1 is the operation number and Data 2 is the operation type. Data 3 and Data 4 are either unused or contain tracing information for use by S&C. Some event descriptions, such as this one, include a code number. In this instance, the code number describes the operation type.

Each data log message is assigned to a specific category, for example, “ATX” (Automatic Operation), based on its application functionality. Events can be easily grouped for analysis.

Each data log message is also assigned to a specific logging level, as follows:

Normal. User information.

Extended. User information and internal status.

All. User information, internal status, and internal trace/debugging information.

The logging levels can be filtered for display.



Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
ATX	A152	2nd Closing Profile Chosen by a Lever		Normal
ATX	A049	Abnormal Prot Processor Restart	Four hours have elapsed since previous abnormal reset Data 1: Digital signal processor time source Data 2: Time elapsed from previous abnormal restart - Part 1 Data 3: Time elapsed from previous abnormal restart - Part 2	Normal
ATX	A14F	Abort Sequence Coordination Due to a Trip		Normal
ATX	A195	Alarm Status Cleared	Digital signal processor alarm condition OFF	Normal
ATX	A194	Alarm Status Reported	Digital signal processor alarm condition ON	Normal
ATX	A00D	All Poles Closed (3-phase operation)	Notification from IMS received by ATX	Normal
ATX	A00C	All Poles Open (3-phase operation)	Notification from IMS received by ATX	Normal
ATX	A023	All Poles Open and Locked Out	All three poles are open and no more testing will be performed	Normal
ATX	A1EC	Alternate Profile Default		Normal
ATX	A01E	ATX Error State	A serious problem has occurred. Contact S&C as soon as possible Data 1: Abort reason	Normal
ATX	A043	ATX Hold Command Executed	Data 1: Command Argument #1	Normal
ATX	A1B2	ATX Manual Operation		Normal
ATX	A1B3	ATX Manual Operation Cleared		Normal
ATX	A044	ATX Run Command Executed	Data 1: Command Argument #1	Normal
ATX	A14E	Backfeed Still Present		Normal
ATX	A04D	Block Volt and Freq Elements, Open	Mechanical disconnect switch position blocks voltage and frequency elements	Normal
ATX	A18B	Calibration Data Alarm Off	All control calibration data CRC are OK	Normal
ATX	A18A	Calibration Data Alarm On	Application board or CCP board calibration data CRC is bad	Normal
ATX	A05A	Calibration Data Reloaded From SEEPROM		Normal
ATX	A058	Calibration Data Updated		Normal
ATX	A029	Cancel Operation State	New ATX state entered	Normal
ATX	A186	Capacitor Driver Disabled		Normal
ATX	A185	Capacitor Driver Enabled		Normal
ATX	A1F3	Close Allowed		Normal
ATX	A1F2	Close Blocked by Synch Check		Normal
ATX	A1EF	Close Command Ignored - Already Closed		Normal
ATX	A1B0	Closed and Quiet		Normal
ATX	A1B1	Closed and Quiet Off		Normal
ATX	A02F	Closed in Closed Profile State	New ATX state entered	Normal
ATX	A031	Closed in Hot-Line Tag State	New ATX state entered	Normal
ATX	A032	Closed in Sequence Coordination State	New ATX state entered	Normal
ATX	A02B	Closed in Test State	New ATX state entered	Normal
ATX	A021	Closed Initial Trip State	New ATX state entered	Normal
ATX	A1C0	Closing Profile 1 Active		Normal
ATX	A1C1	Closing Profile 1 Not Active		Normal
ATX	A1C2	Closing Profile 2 Active		Normal
ATX	A1C3	Closing Profile 2 Not Active		Normal
ATX	A148	Command Suspended	Data 1: Command code Data 2: ATX state	Normal

Category	Hex Code	Description	Definition	Logging Level
ATX	A158	Comm Processor Handshake Issue		Normal
ATX	A159	Comm Processor Handshake Successful		Normal
ATX	A053	Comm Processor No RTC on Power-Up		Normal
ATX	A062	Control Calibration Data CRCs are OK	CCP board and application board calibration data CRC is correct	Normal
ATX	A15A	Control Power Out Time Determined	Time that digital signal processor stopped can be determined	Normal
ATX	A04A	Control Power Out Time Unknown	Time that digital signal processor stopped cannot be determined Data 1: New time source Data 2: Old time source	Normal
ATX	A18F	Control Relatched		Normal
ATX	A055	Control Sequence Allowed to Proceed	Sleep time was within the limit. Test sequence can be resumed	Normal
ATX	A054	Control Sequence Disabled to Proceed	Too much time has elapsed without power	Normal
ATX	A052	Control Sleep Time Determined	Data 1: Sleep time – Part 1 Data 2: Sleep time – Part 2	Normal
ATX	A14C	Control Unlatched-Emergency Shutdown		Normal
ATX	A033	Delay to Close State	New ATX state entered	Normal
ATX	A18E	Emergency Shutdown Started		Normal
ATX	A191	Error Status Cleared	Digital signal processor error condition OFF	Normal
ATX	A190	Error Status Reported	Digital signal processor error condition ON	Normal
ATX	A034	Execute Close State	New ATX state entered	Normal
ATX	A003	External Command Received	Data 1: Command code Data 2: Command Argument #1	Normal
ATX	A05B	External Command Rejected	Close command not in fully open state. Set hot line tag when ATX is disabled Data 1: Command code Data 2: Command Argument #1	Normal
ATX	A1AA	Fault Cycling Active		Normal
ATX	A1AB	Fault Cycling Reset		Normal
ATX	A046	Freq Measured Doesn't Match Config	Different nominal frequency detected Data 1: Measured system frequency	Normal
ATX	A1E6	Frequency Trip		Normal
ATX	A1E7	Frequency Trip Cleared		Normal
ATX	A1B8	General Profile 1 Active		Normal
ATX	A1B9	General Profile 1 Not Active		Normal
ATX	A1BA	General Profile 2 Active		Normal
ATX	A1BB	General Profile 2 Not Active		Normal
ATX	A1BC	General Profile 3 Active		Normal
ATX	A1BD	General Profile 3 Not Active		Normal
ATX	A1BE	General Profile 4 Active		Normal
ATX	A1BF	General Profile 4 Not Active		Normal
ATX	A1B4	Good Source X Voltage		Normal
ATX	A1B6	Good Source Y Voltage		Normal
ATX	A1A5	Ground Trip Allowed		Normal
ATX	A1A4	Ground Trip Blocked		Normal
ATX	A188	HLT Lever Position Indeterminate		Normal
ATX	A03F	Hot-Line Tag Lever Applied	Manual lever operation	Normal

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Category	Hex Code	Description	Definition	Logging Level
ATX	A041	Hot-Line Tag Lever Clear All	Double manual lever operation	Normal
ATX	A040	Hot-Line Tag Lever Removed	Manual lever operation	Normal
ATX	A1C9	Hot-Line Tag Lever Reset		Normal
ATX	A03D	Hot-Line Tag Profile Active		Normal
ATX	A03E	Hot-Line Tag Profile Not Active		Normal
ATX	A1CF	Hot-Line Tag Reset by I-Link Remote		Normal
ATX	A1CB	Hot-Line Tag Reset by SCADA		Normal
ATX	A1CD	Hot-Line Tag Reset by WiFi		Normal
ATX	A1CE	Hot-Line Tag Set by I-Link Remote		Normal
ATX	A1C8	Hot-Line Tag Set by Lever		Normal
ATX	A1CA	Hot-Line Tag Set by SCADA		Normal
ATX	A1CC	Hot-Line Tag Set by WiFi		Normal
ATX	A03A	Idle State		Normal
ATX	A0C6	Illegal Command	Data 1: Command code Data 2: Argument 1 Data 3: Argument 2 Data 4: Argument 3	Normal
ATX	A017	IMS STUB: Close1 Done	Debug message Data 1: Pole Name	Normal
ATX	A011	IMS STUB: Close3 Done	Debug message	Normal
ATX	A010	IMS STUB: Close3 Fired	Debug message	Normal
ATX	A00F	IMS STUB: Open3 Done	Debug message	Normal
ATX	A00E	IMS STUB: Open3 Fired	Debug message	Normal
ATX	A015	IMS STUB: Pulse1 Done	Debug message Data 1: Pole Name	Normal
ATX	A014	IMS STUB: Pulse1 Fired	Debug message Data 1: Pole Name	Normal
ATX	A012	IMS STUB: Pulse3 Fired	Debug message	Normal
ATX	A020	Initialization State	State IntelliRupter must enter on power-up	Normal
ATX	A150	Last Recorded Position Is	Data 1: IntelliRupter state	Normal
ATX	A01F	Locked Open State	Manual handle has been pulled to open position; interrupter contacts are open. Mechanical block prevents closing. Manual handle must be moved to ready position before closing operation can be implemented	Normal
ATX	A07E	Log Fault Currents	Maximum phase and residual currents in the trip state Data 1: Pole 1 current Data 2: Pole 2 current Data 3: Pole 3 current Data 4: Residual current	Normal
ATX	A07F	Log Fault Voltages	Instantaneous values at the moment of trip signal Data 1: Pole 1 voltage Data 2: Pole 2 voltage Data 3: Pole 3 voltage	Normal
ATX	A019	Low Control Energy	Insufficient energy from integral power module	Normal
ATX	A198	Manual Lever Down		Normal
ATX	A051	Manual Lever Moved to Close	Lever is in this position or has been moved to it	Normal
ATX	A050	Manual Lever Moved to Ready	Lever is in this position or has been moved to it	Normal
ATX	A04F	Manual Lever Moved to Open	Lever is in this position or has been moved to it	Normal
ATX	A199	Manual Lever Up		Normal

Category	Hex Code	Description	Definition	Logging Level
ATX	A01C	New Profile Established	Current profile has been changed Data 1: Profile number Data 2: Old profile number	Normal
ATX	A01D	New Profile Not Established	Profile was not properly loaded and cannot be set as current profile, or command to set profile was issued while elements are timing Data 1: Profile number Data 2: Old profile number	Normal
ATX	A008	Next Operation in Test Sequence	Test sequence has advanced to next operation Data 1: Operation number Data 2: Operation type 0 = Three-phase pulse 1 = Three-phase close	Normal
ATX	A1ED	Normal Profile Default	Alternate profile default OFF	Normal
ATX	A009	OC Protective Elements Disabled	Debug message Data 1: Mask of disabled elements	Normal
ATX	A1EE	Open Command Ignored - Already Open		Normal
ATX	A024	Open in Test State	New ATX state entered	Normal
ATX	A04C	Optional Disconnect Closed	Mechanical switch position	Normal
ATX	A04B	Optional Disconnect Open	Mechanical switch position	Normal
ATX	A1AD	Orderly Shutdown Cleared	Control power OK	Normal
ATX	A1AC	Orderly Shutdown Started	Imminent control power loss	Normal
ATX	A1E2	Overcurrent Trip		Normal
ATX	A1E3	Overcurrent Trip Cleared		Normal
ATX	A1D0	Overcurrent Trip Pole 1		Normal
ATX	A1D1	Overcurrent Trip Pole 1 Cleared		Normal
ATX	A1D2	Overcurrent Trip Pole 2		Normal
ATX	A1D3	Overcurrent Trip Pole 2 Cleared		Normal
ATX	A1D4	Overcurrent Trip Pole 3		Normal
ATX	A1D5	Overcurrent Trip Pole 3 Cleared		Normal
ATX	A149	Pending Command Activated	Data 1: Command code	Normal
ATX	A061	Phase Rotation Changed	Phase rotation change has been detected Data 1: New rotation Data 2: Previous rotation Data 3: One-half nominal system voltage, volts Data 4: One-quarter nominal system voltage, volts	Normal
ATX	A00B	Pole Closed (1-phase operation)	Notification from IMS received by ATX Data 1: Pole Name	Normal
ATX	A00A	Pole Open (1-phase operation)	Notification from IMS received by ATX Data 1: Pole Name	Normal
ATX	A01A	Profile Not Replaced	Request to replace active profile during timing elements, or to replace closing profile during CLOSE Data 1: Profile number	Normal
ATX	A01B	Profile Replaced	Requested profile was successfully replaced Data 1: Profile number	Normal
ATX	A196	Protection Processor Reset		Normal
ATX	A057	Protection Processor Reset Status	Data 1: 200 - 201 Data 2: 202 - 203	Normal
ATX	A05E	Prot Processor Abnormal Restart		Normal

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Category	Hex Code	Description	Definition	Logging Level
ATX	A197	Prot Processor Reset Cleared		Normal
ATX	A048	Prot Pssr Timeout No ATXRun Command		Normal
ATX	A02C	Pulse Close Delayed State	New ATX state entered	Normal
ATX	A02D	Pulse Close State	New ATX state entered	Normal
ATX	A025	Pulse Delayed State	New ATX state entered	Normal
ATX	A1F4	Pulse Detected a Fault		Normal
ATX	A1F5	Pulse Detected No Fault		Normal
ATX	A151	Pulse Nonfunctional - Open		Normal
ATX	A027	Pulsing State	New ATX state entered	Normal
ATX	A026	Reclosing State	New ATX state entered	Normal
ATX	A04E	Reject Reset, Disconnect is Open	Status cannot be reset while disconnect is open	Normal
ATX	A036	Replacing Active Profile	New ATX state entered	Normal
ATX	A007	Request Shift to Sequence Coord	External signal or sequence coordination element requested shift	Normal
ATX	A189	Secondary Cap Still Low – Init Stopped	Data 1: Secondary capacitor voltage, volts	Normal
ATX	A1E8	Sectionalizer Trip		Normal
ATX	A1E9	Sectionalizer Trip Cleared		Normal
ATX	A059	SEEPROM Calibration Data Changed		Normal
ATX	A05F	SEEPROM Task Queue is Full		Normal
ATX	A1FD	SEF Not Testing		Normal
ATX	A1FC	SEF Testing		Normal
ATX	A1C4	SEF Trip Blocked		Normal
ATX	A1C5	SEF Trip Allowed		Normal
ATX	A18D	Sensor Calibration Data OK	Sensor calibration data CRC is OK	Normal
ATX	A03B	Shutdown State		Normal
ATX	A063	Significant ATX Error	A serious problem has occurred. Contact S&C as soon as possible	Normal
ATX	A187	Sleep Time Determination Issue	Data 1: New time source	Normal
ATX	A14D	Source Lost in Test Sequence	Data 1: Positive sequence voltage X Data 2: Positive sequence voltage Y Data 3: Voltage threshold	Normal
ATX	A1B5	Source X Voltage Not Ideal		Normal
ATX	A1B7	Source Y Voltage Not Ideal		Normal
ATX	A039	Special Test State		Normal
ATX	A056	Startup Frequency Check Successful		Normal
ATX	A035	Suspend Operation-Low Energy	New ATX state entered	Normal
ATX	A006	Switch Next Test Settings Issue	Selection of next set of curves failed. Curves are not configured or there are timing elements Data 1: Test sequence number Data 2: Error code Data 3: Mask of overcurrent elements are timing	Normal
ATX	A005	Switch to Next Test Settings	Selecting next set of curves for reclosing operation	Normal
ATX	A018	Synch Check Prevents Closing	CLOSE command rejected	Normal
ATX	A047	System Freq Changed by Comm Processor	Data 1: Old system frequency Data 2: New system frequency	Normal
ATX	A1A7	Test On Backfeed Allowed		Normal
ATX	A1A6	Test On Backfeed Blocked		Normal
ATX	A1EB	Testing Allowed		Normal
ATX	A1EA	Testing Blocked	Testing blocked ON	Normal

Category	Hex Code	Description	Definition	Logging Level
ATX	A05C	Total Energy Counters Cleared	Counters cleared by external command	Normal
ATX	A184	Trip Blocked	Data 1: Command Code: Block Trip	Normal
ATX	A1F0	Trip on Loss of Energy		Normal
ATX	A1F1	Trip on Loss of Energy OFF		Normal
ATX	A1D6	Trip Target Pole 1 X		Normal
ATX	A1D7	Trip Target Pole 1 X Cleared		Normal
ATX	A1DC	Trip Target Pole 1 Y		Normal
ATX	A1DD	Trip Target Pole 1 Y Cleared		Normal
ATX	A1D8	Trip Target Pole 2 X		Normal
ATX	A1D9	Trip Target Pole 2 X Cleared		Normal
ATX	A1DE	Trip Target Pole 2 Y		Normal
ATX	A1DF	Trip Target Pole 2 Y Cleared		Normal
ATX	A1DA	Trip Target Pole 3 X		Normal
ATX	A1DB	Trip Target Pole 3 X Cleared		Normal
ATX	A1E0	Trip Target Pole 3 Y		Normal
ATX	A1E1	Trip Target Pole 3 Y Cleared		Normal
ATX	A1A8	Tripped to Lockout		Normal
ATX	A1A9	Tripped to Lockout Cleared		Normal
ATX	A03C	Unpowered State		Normal
ATX	A1C7	Use 1st Closing Profile		Normal
ATX	A1C6	Use 2nd Closing Profile		Normal
ATX	A1E4	Voltage Trip		Normal
ATX	A1E5	Voltage Trip Cleared		Normal
ATX	A02A	Wait Cancel Operation State	New ATX state entered	Normal
ATX	A030	Wait Closing State	New ATX state entered	Normal
ATX	A02E	Wait for Pulse Close Results State	New ATX state entered	Normal
ATX	A038	Waiting Manual Open		Normal
ATX	A037	Waiting Test Open		Normal
ATX	A028	Wait Test Result State	New ATX state entered	Normal
ATX	A022	Wait to Trip Open State	New ATX state entered	Normal
ATX	A153	Waiting for Secondary Cap Voltage		Normal
ATX	A193	Warning Status Cleared	Digital signal processor warning condition OFF	Normal
ATX	A192	Warning Status Reported	Digital signal processor warning condition ON	Normal
ATX	A1AE	WiFi Connected		Normal
ATX	A1AF	WiFi Disconnected		Normal
ATX	A060	Wrong Calibration Data CRC	Data 1: Sensors CRC Status Data 2: Application board CRC status Data 3: CCP board CRC status	Normal
ATX	A18C	Wrong Sensor Calibration Data CRC	Sensor calibration data CRC is bad	Normal
ATX	A14B	ATX Control Timer Expired	Data 1: ATX control timer	Extended
ATX	A14A	ATX Control Timer Started	Data 1: ATX control timer	Extended
ATX	A004	Time Source Changed	Time source changed between GPS and local clock Data 1: New time source Data 2: Old time source	Extended
ATX	A042	Data Acquisition Issue	Calculations do not fit into real time schedule Data 1: ISR counter	All
ATX	A045	Freq Check Issue, No System Voltage	Low voltage prevents frequency check	All

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Category	Hex Code	Description	Definition	Logging Level
ATX	A001	IMS Call Issue	Call to IMS returned non-zero Data 1: IMS return code	All
ATX	A002	Return to Initial Settings Issue	Attempt to return to initial trip settings failed due to timing controller elements	All
ATX	A157	SEEPROM Issue Cleared	Data 1: Failure source	All
ATX	A05D	SEEPROM Operational Issue	Problems with serial EEPROM operations Data 1: Failure source	All
BMM	091E	BMM Hardware Error	Base memory module has been tested and a problem has been found	Normal
BMM	091D	BMM Hardware Is Running	Base memory module has been tested successfully	Normal
BMM	0910	BMM Is Not Ready		Normal
BMM	0911	BMM Is Ready		Normal
BMM	0921	Calibration Data Load Error	Error loading calibration data from base memory module	Normal
BMM	0920	Calibration Data Successfully Loaded	Calibration data successfully loaded from base memory module	Normal
BMM	091B	Could Not Sign Into Base	Writing signature to replacement base memory module failed	Normal
BMM	0924	DNP Irregularity		Normal
BMM	0926	Inconsistent Page Read	Page read was retried on corrupted data and yielded different page status	Normal
BMM	0914	Mechanical Data Read From BMM	Mechanical operation data was successfully read from base memory module	Normal
BMM	0915	Mechanical Data Read From BMM Error	Mechanical operation data was not successfully read from base memory module	Normal
BMM	0917	Mechanical Data Saved BMM Error	Mechanical operation data could not be saved to base memory module	Normal
BMM	0916	Mechanical Data Saved To BMM	Mechanical operation data was successfully saved to base memory module	Normal
BMM	0904	New Base Detected	Replacement base memory module has been detected	Normal
BMM	0905	New WiFi Module	Replacement WiFi module has been detected	Normal
BMM	0923	Operation Aborted On Timeout	Base memory module operation took too long and was aborted. All data was discarded Data 1: Base memory module operation Data 2: Record ID	Normal
BMM	0925	Shutdown Processing		Normal
BMM	0918	Could Not Read DPR Control Register	Error reading data vital to IMS interaction	Extended
BMM	0919	Could Not Write DPR Control Register	Error writing data vital to IMS interaction	Extended
BMM	0912	Directory Entry Rebuilt	Data 1: Record ID Data 2: Address Data 3: Length in bytes Data 4: Status	Extended
BMM	090A	Directory Reconstruction Start	Base memory module directory reconstruction has been started	Extended
BMM	090B	Directory Reconstruction Successful	Base memory module directory reconstruction has been completed	Extended
BMM	0922	EOS to BMM Request Problem	Unexpected data was found during a sector scan	Extended
BMM	091A	Incorrect Mechanical Data Size		Extended
BMM	0900	Internal Data Inconsistency	Base memory module data structures are out of synch	Extended
BMM	0901	Invalid Call	Base memory module software was called incorrectly Data 1: Base memory module operation Data 2: Record ID	Extended

Category	Hex Code	Description	Definition	Logging Level
BMM	0913	Invalid Data Found In Sector	Unexpected data was found during a sector scan Data 1: Sector	Extended
BMM	090C	Operation Aborted On Error	Base memory module operation could not be carried out due to access error Data 1: Operation	Extended
BMM	090D	Readback Error On Erase	Sector page wasn't properly erased Data 1: Sector	Extended
BMM	0902	Record Write Abandoned	Record could not be written to base memory module Data 1: Record ID	Extended
BMM	091F	Record Written Successfully	Record successfully written to base memory module Data 1: Record ID	Extended
BMM	0903	Sector Rescan On Read	Directory entry for a record did not correspond to base memory module contents; relevant sector(s) have been rescanned Data 1: Record ID	Extended
BMM	091C	Unfinished Op. Detected On Startup	A base memory module operation was in progress during last power-down Data 1: Operation	Extended
BMM	0909	Active Sector Switched	Another sector in the pair became active for a given record Data 1: Record ID Data 2: Sector	All
BMM	0908	Sector Erase End	Scheduled sector erase operation has ended Data 1: Sector	All
BMM	0907	Sector Erase Start	Scheduled sector erase operation has begun Data 1: Sector	All
BMM	0906	Sector Found To Be Full	Write operation couldn't proceed because active sector is full Data 1: Sector	All
BMS	0402	AC Power Not Present		Normal
BMS	0416	Application Board Calibration Data Invalid		Normal
BMS	0415	Application Board Calibration Data Okay		Normal
BMS	0409	Battery Charger Normal		Normal
BMS	040A	Battery Charger Overvoltage		Normal
BMS	0414	Battery Connected		Normal
BMS	0413	Battery Disconnected		Normal
BMS	040C	Battery Impedance Low		Normal
BMS	040B	Battery Impedance Normal		Normal
BMS	0407	Battery Needs to Be Replaced		Normal
BMS	0408	Battery OK		Normal
BMS	0404	Battery Temperature Normal		Normal
BMS	0403	Battery Temperature Problem		Normal
BMS	040E	Battery Test Finished		Normal
BMS	0405	Battery Voltage Low		Normal
BMS	0406	Battery Voltage Normal		Normal
BMS	0418	CCP Board Calibration Data Invalid		Normal
BMS	0417	CCP Board Calibration Data Okay		Normal
BMS	400	Digital IO Initialized		Normal
BMS	040F	Hardware Fault Occurred		Normal
BMS	0410	Hardware Fault Resolved		Normal
BMS	0411	Power Up		Normal

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Category	Hex Code	Description	Definition	Logging Level
BMS	0412	Power Up Cleared		Normal
BMS	041A	Set Battery Connect		Normal
BMS	419	Set Battery Disconnect		Normal
BMS	040D	Start Battery Test		Normal
BMS	0401	AC Power Present		All
BMS	420	Set Big Load Test Off		All
BMS	041F	Set Big Load Test On		All
BMS	041C	Set Charger Off		All
BMS	041B	Set Charger On		All
BMS	041E	Set Small Load Test Off		All
BMS	041D	Set Small Load Test On		All
CFM	0B0B	CF Disk Tampered Indication Cleared	Corruption of compact flash directory cleared	Normal
CFM	0B0A	CF Disk Was Tampered With	Corruption of compact flash directory detected on startup	Normal
CFM	0B01	File Allocation In Progress		Normal
CFM	0B02	File Allocation Not In Progress		Normal
CFM	0B07	Set Bad Disk Condition to Off		Normal
CFM	0B06	Set Bad Disk Condition to On		Normal
CFM	0B09	Shutdown Processing		Normal
CFM	0B04	Compact Flash Card Not Found		Extended
CFM	0B08	Allocated File Size Exceeded	Data 2: Allocated size, kB Data 3: Written size, kB	All
CFM	0B05	Disk Check Issue		All
CFM	0B00	Disk Error		All
CFM	0B03	File Allocation Issue		All
DAT	026F	All Teams Are Transfer Ready	All teams are fully operational, and may close IntelliRupters as necessary to transfer load and reconfigure the circuit	Normal
DAT	0297	Bad Voltage Reopen Flag	Associated with Team Member Requalify Time feature Data 1: Team Data 2: Flag value 0 = Timer has cleared; team member can again be considered an alternate source 1 = Team member is disqualified on an unsuccessful attempt to close, and a timer is started	Normal
DAT	0211	Close Switch OK	IntelliRupter/position indicated was successfully closed by the specified team Data 1: Team Data 2: IntelliRupter position	Normal
DAT	026C	Config Update Operation Resumed	Configuration of an active local team has been re-enabled on SETUP: Team screen. Team operation has been resumed	Normal
DAT	0228	Config Update, Operation Suspended	Configuration of an active local team is being changed on SETUP: Team screen. Team operation is suspended in the interim	Normal
DAT	024A	Contract Approved Switch Close	Specified team requested a contract, which traveled to the granting agent, was approved, and came back. IntelliRupter has closed to energize the line segment Data 1: Team	Normal
DAT	024B	Contract Declined	Contract request made by the specified team was declined Data 1: Team	Normal

Category	Hex Code	Description	Definition	Logging Level
DAT	0247	Contract Request Was Accepted	Specified agent accepted the contract request Data 1: Agent	Normal
DAT	0244	Contract Request Was Declined	Specified agent declined the contract request. This message can appear at any agent with the contract on its list Data 1: Agent	Normal
DAT	024C	Contract Requested by Member	Team member has requested that the contract agent negotiate a contract on behalf of the specified team Data 1: Team	Normal
DAT	0253	Contract Resource Limitation	Contract agent found that resources for load transfer were not available, and did not forward the contract any further Data 1: 2 = Segment limitations 3 = Capacity limitations	Normal
DAT	025E	Control Feature Unsuccessful	Requested feature did not execute normally Data 1: Team Data 2: 1 = Operate IntelliRupter 2 = Block reclosing 3 = Block ground trip 4 = Change profile	Normal
DAT	0291	DNP Message Rejected	IntelliTEAM II message to specified RTU was rejected Data 1: RTU Data 2: Code	Normal
DAT	026A	Error Cleared - Gathering Data	Error involving collection of data from IntelliRupter was cleared	Normal
DAT	0208	Error Getting Comm Task From List	Error detected when removing a message from the DNP communications buffer	Normal
DAT	0202	Error Getting Internal IR Data	Error detected when IntelliTEAM II collected data related to IntelliRupter function	Normal
DAT	0203	Error Getting Local IR Data	Error detected when IntelliTEAM II retrieved data for an IntelliRupter in the specified team. This may occur if the IntelliRupter/position number configured on the SETUP: Team screen is incorrect Data 1: Team	Normal
DAT	0204	Error Writing Coach Task-List Full	List of pending tasks that the coach of the specified team carries between team members is full. No more tasks can be put on the list until one or more of the existing tasks have been completed Data 1: Team	Normal
DAT	0207	Error Writing Comm Task-List Full	The coach or team member needs to send a message to another team member, and the DNP communications buffer is full. Existing transactions must be completed before more are put on the communications list	Normal
DAT	0205	Error Writing Event Task-List Full	List of pending team-related tasks is full in the specified team. No more tasks can be put on the list until one or more existing tasks have been completed Data 1: Team	Normal
DAT	0206	Error Writing Member Task-List Full	List of pending member-process tasks is full in the specified team. No more tasks can be put on the list until one or more existing tasks have been completed Data 1: Team	Normal
DAT	0201	Event Register OK	The task indicated has enabled event registering for the specified team. All team members are now aware that an event has occurred Data 1: Team Data 2: Task	Normal

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
DAT	020E	Find Alternate Source Result	During a transfer event, the team must find an alternate source, based on the alternate source sequence and the normal function of the IntelliRupters within the team, as entered on the SETUP: Team screen Data 1: Team Data 2: Record	Normal
DAT	026B	IntelliRupter is Ready for Transfer	IntelliRupter on the specified team is ready for transfer operations Data 1: Team	Normal
DAT	022A	Internal Test Point	General diagnostic message. For details please contact S&C	Normal
DAT	021F	IR Opened for Transfer	During a transfer event, the coach of the specified team opened the IntelliRupter indicated to allow the transfer operation to continue. This may occur if the IntelliRupter is not coordinated to open at the same time as other team members Data 1: Team Data 2: Record	Normal
DAT	029C	ITII Cycling Status Cleared	Data 1: Team Data 2: Record	Normal
DAT	029A	ITII RT-Load Data Problem		Normal
DAT	029B	ITII RT-Load Data Problem Cleared		Normal
DAT	0298	ITII Source Loading Data Active		Normal
DAT	0299	ITII Source Loading Data Not Active		Normal
DAT	021E	Line Segment Faulted	The overcurrent fault is located in the line segment protected by the specified team. The team will not attempt to restore service to this segment Data 1: Team	Normal
DAT	0295	Manual Operation Not Cleared	The user-requested manual operation could not be cleared in the specified team because a team member is not in its normal state Data 1: Team	Normal
DAT	0294	Manual Operation Team Condition Off	The user-requested manual operation condition was cleared in the specified team Data 1: Team	Normal
DAT	0293	Manual Operation Team Condition On	The specified team has entered a non-operational state because of a user-requested manual operation. Typically, the only "expected" manual operation is closing a source IntelliRupter on a previously faulted team to prove that the fault is gone, and allow the Return-to-Normal process to take place (if enabled) Data 1: Team	Normal
DAT	0209	New Coach Generated	A new coach has been generated at a team member of the specified team. This can occur during power-up, if existing coach is lost due to communications failure, or existing coach data is inconsistent Data 1: Team	Normal
DAT	0290	Normally Open Switch Automatic Open	A normally open team member has automatically opened, as requested by IntelliTEAM II. This may occur during the Return-to-Normal process Data 1: Team Data 2: Record	Normal
DAT	0238	Not All Configured Teams Xfer Ready	At least one of the active teams in which the IntelliRupter is a member is not fully operational	Normal
DAT	025A	Prohibit Restoration Timer Expired	The setting of the Prohibit Restoration timer has elapsed, causing Prohibit Restoration to become active for the specified team Data 1: Team	Normal

Category	Hex Code	Description	Definition	Logging Level
DAT	022D	Rebuilding Coach	The coach for the specified team is being regenerated. This may occur during power-up, a configuration change in the team, or a communications failure. For details, please contact S&C Data 1: Team	Normal
DAT	020F	Register Event Disabled	The registering of events for distribution within the specified team has been disabled at the team member. This may occur due to a change in the team configuration on the SETUP: Team screen Data 1: Team	Normal
DAT	0225	Return to Normal Continue OK	The Return-to-Normal process for the specified team may continue to the next step. The code is internal-event-specific Data 1: Team Data 2: Code	Normal
DAT	0221	Return To Normal Disabled at Switch	The Return-to-Normal process for the specified team cannot continue because Return to Normal is disabled on the SETUP: Team screen Data 1: Team	Normal
DAT	0227	Return to Normal Process Unsuccessful	The Return-to-Normal process for the specified team cannot continue Data 1: Team Data 2: 6 = Adjacent source team is not in its normal state 7 = Return To Normal is disabled for the team member	Normal
DAT	0223	Return to Normal Start Event Received	The Return To Normal timer has expired and the member of the specified team has received a request to start the Return-to-Normal process Data 1: Team	Normal
DAT	0220	Return to Normal Start Event Request	The Return To Normal timer has expired and the specified team has requested starting of the Return-to-Normal process Data 1: Team	Normal
DAT	0222	Return to Normal Timer Started	The Return to Normal timer was started by the member of the specified team Data 1: Team	Normal
DAT	023A	RTN in Progress on Any Team	A team is returning the circuit to its normal configuration	Normal
DAT	0271	RTN Not Active on Any Team	No team is returning the circuit to its normal configuration	Normal
DAT	0231	SCADA Prohibit Restoration Active	A SCADA command was received, prohibiting automatic closing of this IntelliRupter to restore load. If applicable, this message will also be displayed on power-up	Normal
DAT	026D	SCADA Prohibit Restoration Cleared	A SCADA command was received, re-enabling automatic closing of this IntelliRupter to restore load. If applicable, this message will also be displayed on power-up	Normal
DAT	021A	Sequence Numbers Resynchronization	The sequence number of events is no longer synchronized in the specified team. The last sequence number received is indicated. The team member will resynchronize the number Data 1: Team	Normal
DAT	023C	Software Mismatch on Arriving Coach	Software revision incompatibility within the team. The data fields show version information for the team member from which the coach just arrived	Normal
DAT	020C	Switch Not Ready for Transfer	IntelliRupter in the specified team is not ready for transfer operations. This may be caused by an internal error (for example, a bad battery)	Normal

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
DAT	0215	Switch Open OK	Specified team successfully opened the IntelliRupter/ position indicated Data 1: Team Data 2: IntelliRupter position	Normal
DAT	023D	Switch Open, Extended Parallel	During a closed-transition Return to Normal, tie-position IntelliRupter opened automatically to prevent extended paralleling of sources	Normal
DAT	0216	Switch Opening Unsuccessful	Specified team was unable to open the IntelliRupter/ position indicated Data 1: Team Data 2: IntelliRupter position	Normal
DAT	0235	Team Communication Error	A team-related message could not be delivered Data 1: Team Data 2: RTU	Normal
DAT	0232	Timer Prohibit Restoration Active	The Prohibit Restoration Timer setting has elapsed, preventing restoration of load by the specified team. If applicable, this message will also be displayed on power-up	Normal
DAT	026E	Timer Prohibit Restoration Cleared	A SCADA command was received, re-enabling automatic closing of this IntelliRupter to restore load. If applicable, this message will also be displayed on power-up	Normal
DAT	0213	Transfer Approved	Transfer operation requested by the specified team, using the previously determined alternate source IntelliRupter, was approved by adjacent teams. For details, contact S&C Data 1: Team Data 2: Restore condition test result	Normal
DAT	0214	Transfer Declined	Transfer operation requested by the specified team, using the previously determined alternate source IntelliRupter, was rejected by adjacent teams. The requesting team must find another alternate source or retry this one Data 1: Team Data 2: Restore condition test result 2 = Fault isolated 3 = Excessive load 4 = Open team not prepared for the transfer 5 = Closed team not prepared for the transfer 6 = Line segment limit exceeded 7 = Issue detected on one of the teams 8 = Phase loss isolated 9 = Source breaker isolated	Normal
DAT	0239	Transfer in Progress on Any Team	A team is reconfiguring the circuit and transferring load to an alternate source	Normal
DAT	0270	Transfer Not Active on Any Team	No team is reconfiguring the circuit or transferring load	Normal
DAT	020D	Unknown Event/Task Request	An event or task was requested within the specified team, for which the team member is not programmed Data 1: Team	Normal
DAT	0272	Unknown Message Type Received	An IntelliTEAM message was received by the specified team but is of a type that is not recognized Data 1: Team Data 2: Message type received	Normal

Category	Hex Code	Description	Definition	Logging Level
DAT	0296	Wait For Team to Open	IntelliTEAM II is waiting for all IntelliRupters in the specified team to open, so that it can attempt to restore service to the team. This is likely to occur only during a second contingency event Data 1: Team	Normal
DAT	023B	Adjust Line Segment Count	Specified team has increased or decreased the line segment count associated with the Line Segment Limit set point, following a transfer event Data 1: Team	Extended
DAT	0257	Alternate Source Flag Cleared	Line segment associated with the specified team is no longer being fed from an alternate source. This message usually follows a Return to Normal operation Data 1: Team	Extended
DAT	022B	Coach Collect Data	New data is being collected by the coach of the specified team at the start of a transfer event. The coach is going to the indicated team member Data 1: Team Data 2: Goto record	Extended
DAT	020A	Coach Old, Duplicate or CRC Bad	The coach received by the specified team is not the current coach and has been rejected. The coach is a duplicate or contains data inconsistent with the presently expected data Data 1: Team Data 2: Coach rejection code 1 = Old 2 = Duplicate 3 = Cyclic redundancy check bad	Extended
DAT	0252	Contract Dissolved by Member	Team member has started dissolving an active contract on behalf of the specified team Data 1: Team	Extended
DAT	0245	Contract General Error	Specified agent detected a contract error Data 1: Agent	Extended
DAT	0248	Contract is Being Dissolved	An active contract is no longer needed and is being dissolved by the specified agent Data 1: Agent	Extended
DAT	0243	Contract Pending Issue	Contract timer expired and pending contract failed. The coach of the originating team may restart the contract request if it cannot find an alternate source Data 1: Originating team Data 2: Adjacent team	Extended
DAT	0256	Contract Reactivated	Contract went missing somewhere along its routing path, and has been reactivated by the specified agent Data 1: Agent	Extended
DAT	0240	Contract Receiver Busy	Receiving contract agent's buffer was full so the contract was dropped Data 1: Receiving contract agent Data 2: Originating contract agent	Extended
DAT	025D	Control Feature OK	Requested control feature has executed normally in the specified team Data 1: Team Data 2: Point Value 1 = Operate IntelliRupter 2 = Block reclosing 3 = Block ground trip 4 = Change profile	Extended

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
DAT	023F	Loading Data Reset	Transfer with a known load value has occurred and IntelliTEAM II has reset the loading data for the specified team to reflect the new value Data 1: Team	Extended
DAT	0242	New Contract Addition Issue	Contract agent tried to add a new contract to its list but could not, so the contract was declined. The agent number is associated with the originating team member Data 1: Agent	Extended
DAT	0217	Operation Switch Function Return	Internal code returned during operation of the IntelliRupter in the specified team Data 1: Team Data 2: IntelliRupter operation result code 0 = SW OK - no result 1 = SW close verified 2 = SW close verify fail 3 = SW close verify fail trip 4 = Bad SW number 5 = SW not auto 6 = SW bad direction 7 = SW was closed 8 = SW open verified 9 = SW open verify fail 10 = SW open excess load 11 = SW was open 12 = Command verified 13 = Command redundant 14 = Command verify fail 15 = Bad control point 16 = SW close fail volt	Extended
DAT	0224	Return to Normal Process Stopped	Return-to-Normal process was completed at the specified member. For details, contact S&C Data 1: Team Data 2: Code	Extended
DAT	0212	Switch Closing Issue	IntelliRupter/position indicated failed to close or remain closed after a request by the specified team. Automatic operation may have been disabled at this team member, or IntelliRupter may have reopened during the shots-to-lockout time period Data 1: Team Data 2: IntelliRupter position	Extended
DAT	029E	Team 1 is in Not Ready State		Extended
DAT	029D	Team 1 is Ready to Transfer		Extended
DAT	02A0	Team 2 is in Not Ready State		Extended
DAT	029F	Team 2 is Ready to Transfer		Extended
DAT	02A2	Team 3 is in Not Ready State		Extended
DAT	02A1	Team 3 is Ready to Transfer		Extended
DAT	02A4	Team 4 is in Not Ready State		Extended
DAT	02A3	Team 4 is Ready to Transfer		Extended
DAT	02A6	Team 5 is in Not Ready State		Extended
DAT	02A5	Team 5 is Ready to Transfer		Extended
DAT	02A8	Team 6 is in Not Ready State		Extended
DAT	02A7	Team 6 is Ready to Transfer		Extended

Category	Hex Code	Description	Definition	Logging Level
DAT	02AA	Team 7 is in Not Ready State		Extended
DAT	02A9	Team 7 is Ready to Transfer		Extended
DAT	02AC	Team 8 is in Not Ready State		Extended
DAT	02AB	Team 8 is Ready to Transfer		Extended
DAT	023E	Unexpected State Change	Unexpected transition occurred at the specified team. An ongoing transfer process may stop as a result Data 1: Team	Extended
DAT	021C	Volt/Fault Reset Occurred	Voltage loss and overcurrent indicators for the specified IntelliRupter have been reset. This may occur after the Sectionalizer Reset timer setting has elapsed or if a transfer event has occurred after team reconfiguration has been completed Data 1: IntelliRupter position	Extended
DAT	025B	Action Path Complete	All steps in the action path of the specified team have been completed, in either the forward or reverse direction Data 1: Team	All
DAT	0218	Coach Arrived	The coach has arrived, along with updated data, at the member of the specified team Data 1: Team	All
DAT	021B	Coach Arrived on Request	The coach has arrived, along with updated data, at a member of the specified team, per the request of that team member Data 1: Team	All
DAT	0219	Coach Has Departed	This coach has departed the specified team member and is going to the team member indicated Data 1: Team Data 2: Goto record	All
DAT	022C	Coach Hold Override	The coach has remained at a member of the specified team, per the request of that team member. To prevent the coach from becoming old and regenerated by an adjacent team member, an override is created, allowing the coach to visit other team members. The coach is going to the team member indicated Data 1: Team Data 2: Goto record	All
DAT	021D	Coach is Held by Team Member	The coach for the specified team is being held by the team member. This occurs when a process is taking place at the team member that requires the presence of coaches from adjacent teams Data 1: Team	All
DAT	0241	Contract Added to List	A new contract was added to the list of contracts being maintained Data 1: Originating team Data 2: Adjacent team	All
DAT	0254	Contract Cannot Travel	Specified contract agent does not know the present source, so it could not forward the contract request. The contract failed Data 1: Agent	All
DAT	024E	Contract Communication Received	Contract agent has received a message Data 1: Team originating contract Data 2: Team through which the message just passed	All
DAT	024F	Contract Maintained	Scheduled maintenance of a contract was performed by the specified contract agent, to confirm the continued need for the contract Data 1: Agent	All

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
DAT	0255	Contract Not Found	Specified contract agent received a message regarding a contract that is not in its list. The contract may be dissolved and, if necessary, reactivated Data 1: Agent	All
DAT	0246	Contract Request Travel	Contract request is traveling between teams Data 1: Team through which the request just came Data 2: Next team member in the direction where the request is headed	All
DAT	024D	Contract Requires Member Wait	Specified team is waiting for a contract to be requested, granted, or declined Data 1: Team	All
DAT	0249	Contract Started by Member	A member of the specified team has determined that it can close based on information from the coach, but it must first request a contract Data 1: Team	All
DAT	0251	Contract Transmit Busy	Transmit buffer of the specified originating contract agent is full. The message is held until the transmit buffer has space, and is then sent Data 1: Agent	All
DAT	0269	DNP Feeder Loading Data Received	Feeder loading data has been received from the source substation or breaker, and may be used in determining the capacity of the circuit during transfer operations Data 1: Loading current = Circuit loading in increments of 10 amperes per count	All
DAT	0250	Duplicate Contract Received	Specified requesting agent received an old or duplicate contract message, which refers to the indicated contract state Data 1: Agent Data 2: Contract state	All
DAT	0258	Member Cleared Task Lock Attributes	The team member logic cleared the execution lock on tasks present on the task list. These tasks may now be executed by the team member	All
DAT	0210	Member Requested	Specified team has requested that the team member execute the task indicated Data 1: Team Data 2: Task	All
DAT	0236	Monitor Line Segment	Specified team has received a request to start a transfer event, but the line segment is still energized. The team monitors the segment until it is de-energized Data 1: Team	All
DAT	025C	Next Action	The team is progressing to the next action in the action path Data 1: Action 3 = Close for transfer 20 = Contract request 21 = Contract terminate 30 = Block recloser 31 = Unblock recloser 33 = Block ground trip 34 = Unblock ground trip 36 = Alternate settings 37 = Normal 253 = Action path done Data 2: Direction the action path is going 1 = Forward 2 = Reverse	All

Category	Hex Code	Description	Definition	Logging Level
DAT	020B	Old or Duplicate Task Discarded	Task on the event list on the specified team is either old or a duplicate of an existing task. This occurs normally as events are distributed throughout the team Data 1: Team	All
DAT	0259	Pending Comm Message Cleared	The coach of the specified team has determined that a pending message is no longer valid, and should be removed from the communications transmit list Data 1: Team	All
DAT	0226	Task Travel	During a Return-to-Normal process, associated tasks travel among multiple teams between the normal source and the normal tie point of the circuit. This message traces the path of the tasks Data 1: From team Data 2: Team	All
DAT	0230	Team Not Ready, Discard Task	The indicated task has been discarded because the specified team was not ready to transfer. This is typically the result of a local or team error condition Data 1: Team Data 2: Task	All
DAT	0292	Transfer State Change	The transfer state changed for the specified team Data 1: Team	All
DAT	0264	Volt/Fault Idle Transfer State	All teams in which this IntelliRupter is a member have transferred to idle, indicating reset of the total three-phase average load Data 1: IntelliRupter position	All
DAT	0266	Volt/Fault Overcurrent Cleared	An overcurrent, followed by a loss of three-phase voltage, resulted in a latched overcurrent condition. The overcurrent is no longer present and three-phase voltage has returned, causing the coach to clear this condition. For details, please contact S&C Data 1: Team Data 2: Record	All
DAT	0268	Volt/Fault Phase Loss Cleared	Loss of a phase voltage resulted in a latched phase-voltage loss condition. Three-phase voltage has returned, causing the coach to clear this condition. For details, please contact S&C Data 1: Team Data 2: Record	All
DAT	0267	Volt/Fault Voltage Loss Cleared	Loss of three-phase voltage resulted in a latched three-phase voltage loss condition. Three-phase voltage has returned, causing the coach to clear this condition. For details, please contact S&C Data 1: Team Data 2: Record	All
DNP	085A	Cold Restart Requested	Cold restart of the IntelliRupter protection and control module has been requested over SCADA, and will be performed in two seconds Data 1: Source address Data 2: Destination address	Normal
DNP	0805	Configuration Change Accepted	Changes to the communications setup parameters were validated and have been made active within the application	Normal
DNP	0800	DNP Initialization Complete	Initialization of DNP processes has been completed without error	Normal

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
DNP	0803	Error in Configuration Data	Specified configuration parameter was set incorrectly or out of range Data 1: Setup value Data 2: Minimum value Data 3: Maximum value	Normal
DNP	0807	Map Change Callback Init Error	DNP point map change callback function could not be registered due to a full callback list, preventing initialization of DNP processes	Normal
DNP	0806	Master Record Not Added	Master record could not be added to the peer device list Data 1: Master record add 1 = Incorrect parameter 3 = List full	Normal
DNP	0804	Old Configuration Remains in Effect	Due to an error in configuration data, existing setup will continue to be used	Normal
DNP	08C7	Pass-Through Routing Disabled	Valid pass-through route configuration was not found and pass-through routing was disabled	Normal
DNP	08C6	Pass-Through Routing Enabled	Valid pass-through route configuration was found and pass-through routing was enabled	Normal
DNP	0802	Point Map Initialization Error	Point mapping table could not be initialized, preventing initialization of DNP processes	Normal
DNP	08A5	Point Map Reinitialized	The specified point map was successfully reinitialized following completion of changes Data 1: Map Number 0 = Binary input 1 = Analog input 2 = Counter 3 = Control 4 = Analog output	Normal
DNP	0801	Route Table Initialization Error	Routing table could not be initialized, preventing initialization of DNP processes	Normal
DNP	08C3	Route Table Initialized	Routing table was successfully initialized with configured routes and routing was enabled Data 1: Count of routes	Normal
DNP	0809	Serial Port Reset Error	Error occurred to the specified port during a communications set point configuration change. Changes to the serial port configuration may not have taken effect Data 1: Port number	Normal
DNP	08AB	Analog Output Code Not Mapped	Analog output function was not added to the list because it is not included in the point mapping configuration Data 1: Point code 1 = Operate IntelliRupter 2 = Block reclosing 3 = Block ground trip 4 = Change profile Data 2: Associated RTU address	Extended
DNP	08AA	Analog Output Function Registered	Analog output function was successfully added to the list Data 1: Point code 1 = Operate IntelliRupter 2 = Block reclosing 3 = Block ground trip 4 = Change profile Data 2: Associated RTU address	Extended

Category	Hex Code	Description	Definition	Logging Level
DNP	08A1	Control Point Code Not Mapped	Control point was not added to the list because it is not included in the point mapping configuration Data 1: Point code 1 = Operate IntelliRupter 2 = Block reclosing 3 = Block ground trip 4 = Change profile Data 2: Associated RTU address	Extended
DNP	08A0	Control Point Function Registered	Control point was successfully added to the list Data 1: Point code 1 = Operate IntelliRupter 2 = Block reclosing 3 = Block ground trip 4 = Change profile Data 2: Associated RTU address	Extended
DNP	0845	Duplicate Fragment Received	Application layer detected a duplicate fragment. Previous response will be resent Data 1: Source address Data 2: Destination address Data 3: Application control	Extended
DNP	0887	Error Assembling Object Header	Error was detected in the object header during assembly of a response message. Response was aborted Data 1: Source address Data 2: Destination address Data 3: Object type Data 4: Variation	Extended
DNP	08A3	Error in Getting Map Timer	Error was detected while attempting to initialize a map-change timer. Operation will be retried Data 1: Map Number 0 = Binary input 1 = Analog input 2 = Counter 3 = Control 4 = Analog output	Extended
DNP	0882	Error in Object Parse	Header or data portion of an object returned in a response message was invalid or otherwise unexpected. If possible, other objects within the response will be processed Data 1: Object type Data 2: Source address Data 3: Destination address	Extended
DNP	08C5	Error in Route Change Timer	Error detected when attempting to initialize a route table-change timer. Operation will be retried	Extended
DNP	08A9	Event Buffer Overflow	Overflow condition has been reached for the event buffer of the reported point type. Oldest event will be removed to make room for the new event, and IIN bit will be set Data 1: DNP Point Type 1 = Binary 2 = Analog 3 = Counter	Extended

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
DNP	0828	Excessive Transmit Fragment Length	Application layer was requested to send a fragment larger than the 2-kB size limitation Data 1: Fragment length	Extended
DNP	0846	Excessive Transmit Fragment Length	Application layer was requested to send a fragment larger than the 2-kB size limitation Data 1: Fragment length	Extended
DNP	0850	FIR/FIN Not Set	Application layer found that FIR and FIN bits of application control byte were not set. Fragment was discarded Data 1: Source address Data 2: Destination address Data 3: Application control	Extended
DNP	0889	Fragment Data Size Error	Amount of data available in the fragment was not consistent with the expected amount of data. Fragment was discarded Data 1: Source address Data 2: Data length Data 3: Data index	Extended
DNP	0827	Fragment Not Found	Matching fragment was not found in the buffers for a newly received frame of a multi-frame fragment. Frame was discarded Data 1: Transport header Data 3: Source address	Extended
DNP	084A	Fragment Timed Out on Transmit List	Fragment was removed from application layer transmit list after an extended period of inactivity. This will normally only occur if the transport function and data link layer are unable to service transmit requests Data 1: Source address Data 2: Destination address Data 3: Application control Data 4: Function code	Extended
DNP	0826	Frame Addition Unsuccessful	Newly received frame of a multi-frame fragment was unable to be added to the fragment due to the 2-kB size restriction. Fragment was discarded Data 1: Transport header of fragment Data 2: Transport header of frame Data 3: Source address	Extended
DNP	082E	Frame Declined by Datalink	Data link layer was unable to accept the request to transmit this frame. Frame transmit will be retried until it is accepted or the message times out on the transmit list Data 2: Destination address Data 3: Transport header Data 4: Frame length	Extended
DNP	085B	Function Code Not Implemented	Application layer received a message containing a DNP function code that is invalid or is not implemented Data 1: Source address Data 2: Destination address Data 3: Function code	Extended
DNP	0849	Incorrect Amount of Data Received	Application layer detected an inconsistency in the amount of data in the fragment. Fragment was discarded Data 1: Source address Data 2: Reported length Data 3: Actual length	Extended

Category	Hex Code	Description	Definition	Logging Level
DNP	0808	Incorrect Frame Length	Actual length of received DNP frame does not match length indicated in DNP data link header. Frame was discarded Data 1: Actual length Data 2: Indicated length	Extended
DNP	0856	Initial Unsolicited Message Confirmed	Confirmation message was received for the unsolicited null messages that must be sent on power-up Data 1: Callback Status 0 = Message response received successfully 1 = Message received no response 2 = Message expired on the transmit list 3 = Message response data contained an error 4 = Message had no associated peer device	Extended
DNP	08A7	Input Point Code Not Mapped	Application attempted to supply input data for a point that is not included in the configured point mapping Data 1: Point type Data 2: Point code 1 = Operate IntelliRupter 2 = Block reclosing 3 = Block ground trip 4 = Change profile	Extended
DNP	0848	Invalid Fragment Length Received	Application layer detected a fragment with an invalid length. Valid range is 2 to 2048 bytes. Fragment was discarded Data 1: Fragment length	Extended
DNP	0888	Invalid Object Range Index	Error was detected in an object header of the current request message related to the data index values. An attempt will be made to process other objects within the message Data 1: Source address Data 2: First index or index size Data 3: Last index or qualifier	Extended
DNP	0820	Invalid Transport Segment Length	Transport segment length of the DNP frame is invalid. Valid range is 3 to 250. Frame was discarded Data 1: Segment length	Extended
DNP	08AC	Map Change Callback Buffer Full	Special function used to inform the application about map changes was unable to be added to the list. The list was full	Extended
DNP	08AD	Map Change Callback Registered	Special function used to inform the application about map changes was successfully added to the list	Extended
DNP	0842	Message Taken Off Xmit List, No Peer	Destination peer device was not found in the peer list, possibly due to a change in configuration. Message was discarded Data 1: Source address Data 2: Destination address Data 3: Application control Data 4: Function code	Extended
DNP	082B	Message Timed Out on Receive List	Fragment was removed from transport function receive buffer after extended period of inactivity Data 1: Transport header Data 3: Source address	Extended

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
DNP	082C	Message Timed Out on Transmit List	Fragment was removed from transport function transmit buffer after extended period of inactivity Data 1: Transport header Data 3: Source address	Extended
DNP	0853	No Peer Record Found During Xmit	Transmit was attempted to a device that was not found on the peer device list. The transmit was aborted	Extended
DNP	0844	No URBE Delay Timer	No Unsolicited Report by Exception timer was found when attempting to start an internal timer	Extended
DNP	0886	Object Header Error	Error was detected in the object header of the DNP message Data 1: Source address Data 2: Destination address Data 3: Object type Data 4: Variation	Extended
DNP	0884	Object Qualifier Error	Qualifier code of object returned in response message is invalid or unsupported Data 1: Object type Data 2: Source address Data 3: Destination address Data 4: Invalid qualifier/ index code	Extended
DNP	0883	Object Variation Error	Variation of object returned in response message is invalid or unsupported Data 1: Object type Data 2: Source address Data 3: Destination address Data 4: Variation	Extended
DNP	088A	Object/Variation Not Supported	Object being processed does not include a support object and variation combination. An attempt will be made to continue parsing other objects within the message Data 1: Source address Data 2: Object type Data 3: Variation	Extended
DNP	0885	Parsed Data Buffer Full	Data buffer containing parsed object data is full. No further parsing of this response message will take place Data 1: Object type Data 2: Source address Data 3: Destination address Data 4: Variation	Extended
DNP	084F	Peer Device Added to List	Peer device was successfully added to the peer device list Data 1: Peer RTU address Data 2: Port code 0 = IP (or none) 1 = Port A 2 = Port B 3 = Port C 4 = Port D Data 3: Master flag	Extended
DNP	084D	Peer Device Already on List	Addition of the peer device to the list was unsuccessful because the device is already on the list Data 1: Peer RTU address	Extended
DNP	084C	Peer Device Buffer Full	Peer device was unable to be added to the peer device list due to the buffer being full	Extended

Category	Hex Code	Description	Definition	Logging Level
DNP	085D	Peer Device Modified on List	Data 1: Peer RTU Address	Extended
DNP	0855	Peer Device Not on List	Requested peer device was not found on the peer device list when attempting to remove the device from the list Data 1: Peer RTU address	Extended
DNP	084E	Peer Device Removed From List	Peer device was successfully removed from the peer device list Data 1: Peer RTU address	Extended
DNP	08A6	Point Definition Invalid	Problem was found in the configuration data of a mapped point. The map will not be initialized until the error is corrected Data 1: Map number 0 = Binary input 1 = Analog input 2 = Counter 3 = Control 4 = Analog output Data 2: Point index 1 = Operate IntelliRupter 2 = Block reclosing 3 = Block ground trip 4 = Change profile Data 3: Error data	Extended
DNP	0859	Port Code Invalid	Invalid port code detected when attempting to add a peer device to the peer device list Data 1: Peer RTU address Data 2: Invalid port code value	Extended
DNP	0822	Receive Data Buffer Full	Transport function receive data buffers are full. These buffers hold the data portion of the received DNP frames. New frame was discarded	Extended
DNP	0821	Receive Message Buffer Full	Transport function receive message buffers are full. These buffers hold the frame header information and other message details. New frame was discarded	Extended
DNP	082D	Removed Deferred Read Request	DNP read request that was deferred due to an outstanding unsolicited message has been removed. A newer request was received	Extended
DNP	0841	Reset Peer Link Received	Reset Data Link frame was received from the reported peer device Data 1: Source address Data 2: Action taken 1 = Record reinit 2 = Reset seq num only 3 = New peer added	Extended
DNP	0840	Reset Peer Link Sent	Reset Data Link frame was sent to a peer device in an attempt to reinitialize peer-to-peer communications Data 1: Source address Data 2: Destination address	Extended
DNP	08C2	Route Could Not be Added	Routing table did not have room for the new route. Routing table will not be initialized Data 1: Route RTU address Data 2: Route table index	Extended

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
DNP	08C1	Route Entry Invalid	An issue was found with one of the configured route entries. Routing table will not be initialized until the issue is corrected Data 1: Route RTU address Data 2: Route table index Data 3: Route entry error 1 = Broadcast addresses invalid in routing tables 2 = IP address and port indication must be mutually exclusive	Extended
DNP	088E	SBO Select Timer Error	Error detected when attempting to initialize a select-before-operate timer. The operation request was aborted Data 1: Object type Data 2: Select-before-operate timer value	Extended
DNP	088D	SBO Select Timer Unavailable	Internal timer was not available to perform the select-before-operate timing function. Operation request was aborted Data 1: Object type	Extended
DNP	0851	Sequence Number Mismatch	Application layer found that sequence number in the application control byte was inconsistent with what was expected. Fragment was discarded Data 1: Source address Data 2: Destination address Data 3: Application control	Extended
DNP	0843	Set URBE Timer Error	Error detected when attempting to start an internal timer	Extended
DNP	0881	Special Function Already on List	An attempt to register a special memory read/write function was rejected because a special function for that memory location already exists in the buffer	Extended
DNP	0880	Special Function Buffer Full	An attempt to register a special memory read/write function was rejected because the buffer was full	Extended
DNP	088B	Special Function Registered	Special function related to a specific memory action and virtual memory address was successfully added to the list Data 1: Action 1 = Read 2 = Write Data 2: Memory address	Extended
DNP	0852	Transient Peer Device Addition Issue	Source of this fragment is unknown. An unsuccessful attempt was made to add it to the peer device list. Fragment was discarded Data 1: Source address Data 2: Application control	Extended
DNP	0829	Transmit Fragment Buffer Full	No free buffer was found in transport function transmit buffers. Application layer may save this message and reattempt to transmit	Extended
DNP	0847	Transmit Fragment Buffer Full	No free buffer was found in application layer transmit list. Fragment may be retried or discarded	Extended
DNP	085C	Unknown Master Access Restricted	Device that was previously unknown has requested an action that is restricted to configured master stations. Restricted actions include write, select/operate, and cold restart Data 1: Source address Data 2: Destination address Data 3: Function code	Extended

Category	Hex Code	Description	Definition	Logging Level
DNP	0858	URBE Disabled Via SCADA	Unsolicited Report by Exception processing was disabled over SCADA Data 1: Source address Data 2: Unsolicited Report by Exception status	Extended
DNP	0857	URBE Enabled Via SCADA	Unsolicited Report by Exception processing was enabled over SCADA Data 1: Source address Data 2: Unsolicited Report by Exception Status	Extended
DNP	0854	URBE Registration Buffer Full	Buffer containing callback functions for unsolicited messages was full when attempting to add another function	Extended
DNP	08A4	Utility Timer Unavailable	Internal timer was not available to perform the routing table configuration change timing function. DNP initialization was aborted	Extended
DNP	08C0	Utility Timer Unavailable	Internal timer was not available to perform the map-change timing function. DNP initialization was aborted Data 1: Map number 0 = Binary input 1 = Analog input 2 = Counter 3 = Control 4 = Analog output	Extended
DNP	088C	Virtual Memory Read or Write Error	Request to read or write virtual memory addresses was unsuccessful Data 1: Source address Data 2: Memory address Data 4: Virtual memory access action 1 = Read 2 = Read 3 = Write 4 = Write	Extended
DNP	0825	App Layer Accepted FIN Only Message	Multi-frame fragment was successfully processed by the application layer and is being removed from the transport function buffers Data 1: Transport header Data 2: Fragment length Data 3: Source address	All
DNP	0824	App Layer Accepted FIR/FIN Message	Single-frame fragment was successfully processed by the application layer and is being removed from the transport function buffers Data 1: Transport header Data 2: Fragment length Data 3: Source address	All
DNP	084B	App Layer Accepted Good Fragment	Application layer accepted a complete fragment from the transport function Data 1: Source address Data 2: Data length Data 3: Application control Data 4: Function code	All

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
DNP	08A2	Change to Point Map Detected	Configuration change to a point map was detected. Change will be processed 30 seconds after the last change is detected Data 1: Map number 0 = Binary input 1 = Analog input 2 = Counter 3 = Control 4 = Analog out	All
DNP	082A	Frame Accepted by Data Link Layer	Single frame or multi-frame fragment was successfully handed off to the data link layer for transmitting Data 1: Source address Data 2: Destination address Data 3: Transport header Data 4: Frame length	All
DNP	088F	Issue With Output Block	Operation request was unsuccessful due to an issue in the control relay output block of the message. See DNP documentation for a complete list of DNP output block status codes Data 1: Object type Data 2: DNP output block status code Data 3: Point number Data 4: Function code	All
DNP	0823	Removed Old FIR-Only Message	Incomplete fragment was discarded due to a newer message being received from the same source device Data 1: Transport header Data 3: Source address	All
DNP	085E	Request Time Synchronization Received	Data 1: Status Data 2: Source Address Data 3: Destination Address	All
DNP	08C4	Route Configuration Change Detected	Configuration change to the routing table was detected. Change will be processed 30 seconds after the last change is detected	All
DPR	0707	Clear DPR Commands and Restart		Normal
DPR	0711	Compact Flash Memory is Not Mounted		Normal
DPR	0702	DPR Command Queue is Full		Normal
DPR	0712	Ext WFC Transfer to CF Finished		Normal
DPR	070A	Ext WFC Transfer to CF Started		Normal
DPR	070B	Ext WFC Transfer to CF Successful		Normal
DPR	0700	Incorrect DPR Event Information		Normal
DPR	0703	Invalid Argument For Externals		Normal
DPR	0705	Invalid Command Handler		Normal
DPR	0714	PNG Transfer to CF Finished		Normal
DPR	0713	PNG Transfer to CF Started		Normal
DPR	070F	PNG Transfer to CF Successful		Normal
DPR	0704	Profile Number is Invalid		Normal
DPR	0716	Prot Processor Synch Error		Normal
DPR	0701	Prot Pssr No Response to Externals		Normal
DPR	0706	Prot Pssr Responding to Externals		Normal
DPR	070D	Special WFC Transfer to CF Successful		Normal
DPR	0718	Transfer Operation Records to CF Failed		Normal
DPR	0717	Transfer Operation Records to CF Succeeded		Normal

Category	Hex Code	Description	Definition	Logging Level
DPR	0708	WFC Transfer to CF Successful		Normal
DPR	0715	CF Issue (Use Next Operation)		All
DPR	070C	Ext WFC Save to CF Unsuccessful		All
DPR	0710	PNG Data Save to CF Unsuccessful		All
DPR	070E	Special WFC Save to CF Unsuccessful		All
DPR	0709	WFC Save to CF Unsuccessful		All
DPX	608	Lookup Table Generation Unsuccessful	Data 1: Profile Generation Code Data 2: Curve Data 3: Profile	Normal
DPX	0603	Register DNP Special Function Warning	Issue encountered during application initialization that will prevent functionality of one or more DNP commands	Normal
DPX	0606	Replace Active Profile Cmd Successful	Command to replace active profile was successful	Normal
DPX	0607	Replace Active Profile Cmd Unsuccessful	Command to replace active profile was unsuccessful	Normal
DPX	0605	Replace Active Profile Command Received	Command to replace active profile was received	Normal
DPX	0604	Replacement Profile Unsuccessful	Issue encountered in replacing a profile from the digital signal processor scratchpad, preventing some or all settings from being successfully applied	Normal
DPX	0601	Settings Validated Successfully		Normal
DPX	0602	Settings Validation Unsuccessful	Issue encountered in validating settings. Settings cannot be applied Data 1: Settings group Data 2: Instance Data 3: Error	Normal
DPX	0600	Unsuccessful Settings to Prot Prcsr	Issue encountered in moving settings across the Dual Ported RAM to the protection processor, preventing some or all settings from being successfully transferred	Normal
IIM	0C04	Activate Alternate Profile Request		Normal
IIM	0C05	Alternate Profile Active		Normal
IIM	0C0E	Any Phase Loss Active		Normal
IIM	0C0F	Any Phase Loss Cleared		Normal
IIM	0C0C	Any Phase Overcurrent		Normal
IIM	0C0A	Average Load Reset		Normal
IIM	0C03	Control Close OK		Normal
IIM	0C02	Control Close Request		Normal
IIM	0C01	Control Open OK		Normal
IIM	0C00	Control Open Request		Normal
IIM	0C09	Control Operation Problem		Normal
IIM	0C08	Control Operation Request Problem		Normal
IIM	0C19	Fault Cycling Active		Normal
IIM	0C18	Fault Cycling Reset		Normal
IIM	0C14	Frequency Trip Active		Normal
IIM	0C15	Frequency Trip Cleared		Normal
IIM	0C12	Hot-Line Tag Active		Normal
IIM	0C13	Hot-Line Tag Cleared		Normal
IIM	0C1C	IntelliRupter In Reset State		Normal
IIM	0C1D	IntelliRupter Not In Reset State		Normal
IIM	0C1B	IntelliRupter Status Closed		Normal
IIM	0C1A	IntelliRupter Status Open		Normal
IIM	0C07	IT II Not Ready		Normal

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Category	Hex Code	Description	Definition	Logging Level
IIM	0C06	IT II Ready		Normal
IIM	0C11	Manual Operation Cleared		Normal
IIM	0C10	Manual Operation Detected		Normal
IIM	0C0D	Overcurrents Cleared		Normal
IIM	0C0B	SCADA Cleared Manual Operation		Normal
IIM	0C16	Trip to Lockout Active		Normal
IIM	0C17	Trip to Lockout Cleared		Normal
IMS	A0D2	Actuator Travel Complete	Data 1: Pole Name	Normal
IMS	A10C	Alarm - 2mm Gap Time Too High OFF		Normal
IMS	A10B	Alarm - 2mm Gap Time Too High ON		Normal
IMS	A125	Alarm - Average Close-Open Time Low OFF		Normal
IMS	A126	Alarm - Average Close-Open Time Low ON		Normal
IMS	A124	Alarm - Close-Open Time Low OFF		Normal
IMS	A10D	Alarm - Close-Open Time Low ON		Normal
IMS	A129	Alarm - Current Profile Incorrect OFF		Normal
IMS	A128	Alarm - Current Profile Incorrect ON	Data 1: Pole Name	Normal
IMS	A127	Alarm - Excessive Overtravel OFF	Data 1: Pole Name	Normal
IMS	A0E9	Alarm - Excessive Overtravel ON		Normal
IMS	A0C9	Close Complete	Data 1: Pole Name	Normal
IMS	A0E2	Close-Open Time Out of Bound		Normal
IMS	A109	Close Contact Touch Time Out of Range ON	Data 1: Pole Name	Normal
IMS	A10A	Close Contact Touch Time Out of Range OFF		Normal
IMS	A0DE	Contact Touch Angle Out of Bounds	Time difference between the expected contact touch and actual contact touch exceeds 2 ms Data 1: Pole this was recorded on Data 2: Expected number of ticks to contact touch Data 3: Actual number of ticks to contact touch. One tick in time is $1/[(\text{system frequency})(128)]$ On a 50-Hz system, a tick is 0.15625 ms. On a 60-Hz system, a tick is 0.1302 ms Point-on-wave error in electrical degrees = (Absolute value of the difference between the actual and the expected ticks) (360 degrees/128 samples per cycle)	Normal
IMS	A0D7	Debug 1		Normal
IMS	A0D8	Debug 2		Normal
IMS	A0E7	Error - Close Position Out of Range	Data 1: Pole Name Data 2: Encoder Counts	Normal
IMS	A108	Error - Main Coil Current OFF		Normal
IMS	A107	Error - Main Coil Current ON		Normal
IMS	A0FD	Error - Position Incorrect OFF		Normal
IMS	A0E8	Error - Position Incorrect ON		Normal
IMS	A0F1	Execute Secondary Latching Operation		Normal
IMS	A0EB	IMS ISR Excess Duration		Normal
IMS	A0EA	IMS/ACW ISR Interleave Mismatch		Normal
IMS	A0EE	IMS/BMM New Copy Loaded		Normal
IMS	A0ED	IMS/BMM Save Request		Normal
IMS	A0EF	IMS/BMM Status Update		Normal
IMS	A0EC	IMS/PNG Wrong Touch Reported		Normal
IMS	A105	Insufficient Energy During Operation On		Normal

Category	Hex Code	Description	Definition	Logging Level
IMS	A106	Insufficient Energy During Operation Off		Normal
IMS	A0E3	IntelliRupter Change to Recloser		Normal
IMS	A104	IntelliRupter Change to Recloser Off		Normal
IMS	A11A	IntelliRupter Closed		Normal
IMS	A11B	IntelliRupter Closed Off		Normal
IMS	A11C	IntelliRupter Open		Normal
IMS	A11D	IntelliRupter Open Off		Normal
IMS	A0D5	Invalid Pulse	Data 1: Pole Name	Normal
IMS	A0D4	Inverse Pulsing Faulted Pole	Data 1: Pole Name	Normal
IMS	A121	Mechanism Alarm Off		Normal
IMS	A12D	Mechanism Alarm On		Normal
IMS	A11E	Mechanism Error		Normal
IMS	A11F	Mechanism Error Off		Normal
IMS	A123	Mechanism Warning Off		Normal
IMS	A122	Mechanism Warning On		Normal
IMS	A0CD	Operation Interrupted		Normal
IMS	A0E6	Operation Restart During Reset		Normal
IMS	A0F3	Placeholder 26		Normal
IMS	A0F4	Placeholder 27		Normal
IMS	A0F5	Placeholder 28		Normal
IMS	A10E	Pole 1 Closed		Normal
IMS	A10F	Pole 1 Closed Off		Normal
IMS	A114	Pole 1 Open		Normal
IMS	A115	Pole 1 Open Off		Normal
IMS	A110	Pole 2 Closed		Normal
IMS	A111	Pole 2 Closed Off		Normal
IMS	A116	Pole 2 Open		Normal
IMS	A117	Pole 2 Open Off		Normal
IMS	A112	Pole 3 Closed		Normal
IMS	A113	Pole 3 Closed Off		Normal
IMS	A118	Pole 3 Open		Normal
IMS	A119	Pole 3 Open Off		Normal
IMS	A0DF	Pole Close Time	Data 1: Expected Data 2: Actual	Normal
IMS	A0E0	Pole Pulse Time	Data 1: Expected Data 2: Actual	Normal
IMS	A0D3	Pole Still Faulted	Data 1: Pole Name	Normal
IMS	A0FA	Pole Travel Below Limit Off	Data 2: Encoder counts	Normal
IMS	A0F0	Primary State Now	Data 3: IMS counter	Normal
IMS	A0CE	Pulse Complete	Data 1: Pole Name	Normal
IMS	A0F8	Pulse Contact Touch Time Out of Range ON	Data 1: Pole Name	Normal
IMS	A0F9	Pulse Contact Touch Time Out of Range OFF		Normal
IMS	A0CF	Pulsing Disabled - No Contact Touch ON	Data 1: Pole Name	Normal
IMS	A0DD	Pulsing Disabled - No Contact Touch OFF	Data 1: Pole Name	Normal
IMS	A0DB	Pulsing Disabled - No Encoder Output	Data 1: Pole Name	Normal
IMS	A0DC	Pulsing Disabled - No Encoder Reset ON		Normal
IMS	A103	Pulsing Disabled - No Encoder Reset OFF		Normal
IMS	A0E4	Pulsing Disabled - Touch Out of Range ON	Data 1: Pole Name	Normal

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Category	Hex Code	Description	Definition	Logging Level
IMS	A0F6	Pulsing Disabled - Touch Out of Range OFF		Normal
IMS	A0F7	Pulsing Disabled - Touch Out of Range ON		Normal
IMS	A0FE	Pulsing Disabled - Touch Out of Range OFF		Normal
IMS	A102	Pulsing Enabled - Encoder Output		Normal
IMS	A0E1	Receive DFT	Data 1: Raw phase least-significant word Data 2: Raw phase most-significant word	Normal
IMS	A0D6	Request DFT	Data 1: Pole Name	Normal
IMS	A0E5	Secondary Mech Reset Test Complete	Data 1: Pole Name	Normal
IMS	A0CA	Start of Close	Data 1: Pole Name	Normal
IMS	A0CC	Start of Open	Data 1: Pole Name	Normal
IMS	A0CB	Start of Pulse	Data 1: Pole Name	Normal
IMS	A0D0	Three Poles Are Closed		Normal
IMS	A0D1	Three Poles Are Open		Normal
IMS	A0DA	Warning - Secondary Plunger Not Opening ON		Normal
IMS	A0F2	Warning - Secondary Plunger Not Opening OFF		Normal
IPM	1010	A15- Voltage Supply Normal		Normal
IPM	100F	A15- Voltage Supply Out of Range		Normal
IPM	100E	A15+ Voltage Supply Normal		Normal
IPM	100D	A15+ Voltage Supply Out of Range		Normal
IPM	1012	A5 Voltage Supply Normal		Normal
IPM	1011	A5 Voltage Supply Out of Range		Normal
IPM	1014	AC Power Not Present		Normal
IPM	1013	AC Power Present		Normal
IPM	A141	Bank Capacitance Recalculated	Data 1: Main bank capacitance, microfarads Data 2: Secondary bank capacitance, microfarads Data 3: Directly calculated main bank capacitance, microfarads Data 4: Capacitor bank temperature used for capacitance compensation, °C	Normal
IPM	1016	Battery Connected		Normal
IPM	1015	Battery Disconnect		Normal
IPM	A138	Capacitor Charge Disabled Alarm Set	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	Normal
IPM	A146	Capacitor Charge Disabled Warning Cleared	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	Normal
IPM	A137	Capacitor Charge Disabled Warning Set		Normal
IPM	1017	Capacitor Voltage Low		Normal
IPM	1018	Capacitor Voltage Normal		Normal
IPM	A133	Capacitors Not Charging	Data 1: Capacitor bank Data 2: Charge rate, volts/10 seconds	Normal
IPM	A16A	Capacitors Voltage Change	Capacitor voltage drops due to mechanism operations Data 1: Main bank voltage before the operation, volts Data 2: Secondary bank voltage before the operation, volts Data 3: Main bank voltage after the operation, volts Data 4: Total measured capacitance, microfarads	Normal
IPM	1024	Clear Non Function IPM Log		Normal

Category	Hex Code	Description	Definition	Logging Level
IPM	1003	Control Power Loss		Normal
IPM	1004	Control Power Recover		Normal
IPM	100C	D3.3 Voltage Supply Normal		Normal
IPM	100B	D3.3 Voltage Supply Out of Range		Normal
IPM	A140	Energy Budget Details	Data 1: Requested energy, joules Data 2: Available energy, joules Data 3: Main bank voltage, volts Data 4: Secondary bank voltage, volts	Normal
IPM	A144	Energy Storage Capacity Above 50%	Data 1: Calculated main bank capacitance, microfarads Data 2: Calculated secondary bank capacitance, microfarads Data 3: Initial main bank capacitance, microfarads Data 4: Initial secondary bank capacitance, microfarads	Normal
IPM	A145	Energy Storage Capacity Above 80%	Data 1: Calculated main bank capacitance, microfarads Data 2: Calculated secondary bank capacitance, microfarads Data 3: Initial main bank capacitance, microfarads Data 4: Initial secondary bank capacitance, microfarads	Normal
IPM	A142	Energy Storage Capacity Below 50%	Data 1: Calculated main bank capacitance, microfarads Data 2: Calculated secondary bank capacitance, microfarads Data 3: Initial main bank capacitance, microfarads Data 4: Initial secondary bank capacitance, microfarads	Normal
IPM	A143	Energy Storage Capacity Below 80%	Data 1: Calculated main bank capacitance, microfarads Data 2: Calculated secondary bank capacitance, microfarads Data 3: Initial main bank capacitance, microfarads Data 4: Initial secondary bank capacitance, microfarads	Normal
IPM	A136	Equal Capacitor Bank Voltages	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	Normal
IPM	A168	Executed Operations	Number and type of operations performed Data 1: Number of open operations Data 2: Number of close operations Data 3: Number of pulse operations Data 4: Number of secondary resets	Normal
IPM	A12D	Integrated Power Module State Changed	Data 1: New integral power module state Data 2: Old integral power module state	Normal
IPM	1019	IPM in Monitor Mode		Normal
IPM	101A	IPM in Operation Mode		Normal
IPM	A13B	Loss of Control Power		Normal
IPM	A12E	Main Capacitor Bank Low Voltage	Data 1: Main bank voltage, volts	Normal
IPM	A12F	Main Capacitor Bank Normal Voltage	Data 1: Main bank voltage, volts	Normal

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Category	Hex Code	Description	Definition	Logging Level
IPM	A13A	Main Capacitor Charge Off	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	Normal
IPM	A139	Main Capacitor Charge On	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	Normal
IPM	1005	Main Power Bus Low		Normal
IPM	1006	Main Power Bus Normal		Normal
IPM	1023	Non Function IPM		Normal
IPM	A131	Normal Capacitor Charge	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	Normal
IPM	A16B	Operation Prohibited – Secondary Low	Data 1: Main capacitor bank voltage, volts Data 2: Secondary capacitor bank voltage, volts	Normal
IPM	1008	P15 Voltage Supply Normal		Normal
IPM	1007	P15 Voltage Supply Out of Range		Normal
IPM	100A	P5 Voltage Supply Normal		Normal
IPM	1009	P5 Voltage Supply Out of Range		Normal
IPM	1001	Power Status Change		Normal
IPM	1002	Power Status Recover		Normal
IPM	A13D	Primary Temperature Sensor OK	Data 1: Primary sensor temperature, degrees Data 2: Secondary sensor temperature, degrees	Normal
IPM	A169	Requested Operations	Number and type of operations for which IMS has requested energy Data 1: Number of open operations Data 2: Number of close operations Data 3: Number of pulse operations Data 4: Number of secondary resets	Normal
IPM	A13F	Secondary Temperature Sensor OK	Data 1: Primary sensor temperature, degrees Data 2: Secondary sensor temperature, degrees	Normal
IPM	A130	Slow Capacitor Charge	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	Normal
IPM	A132	Slow Capacitor Charge Rate	Data 1: Charge Rate, volts/10 seconds Data 2: Alarm counter Data 3: Capacitor bank Data 4: Capacitor bank voltage, volts	Normal
IPM	A135	Unequal Capacitor Bank Voltages	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	Normal
IPM	A147	Operation Prohibited	Data 1: Main capacitor capacity, microfarads Data 2: Secondary capacitor capacity, microfarads	Extended
IPM	A134	Capacitor Bank Interconnection Issue	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	All
IPM	A154	Capacitor Bank Interconnection OK	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	All
IPM	A155	Capacitor Charge Disabled Alarm Cleared	Data 1: Main bank voltage, volts Data 2: Secondary bank voltage, volts	All
IPM	A15C	Cap Charging Error Cleared	Capacitor banks are charging	All
IPM	A15B	Cap Charging Error Set	One of the capacitor banks is not charging	All
IPM	A13C	Primary Temperature Sensor Issue	Data 1: Primary sensor temperature, degrees Data 2: Secondary sensor temperature, degrees	All
IPM	A13E	Secondary Temperature Sensor Issue	Data 1: Primary sensor temperature, degrees Data 2: Secondary sensor temperature, degrees	All

Category	Hex Code	Description	Definition	Logging Level
IPM	A15D	Shutdown Sequencing Error Cleared		All
IPM	A156	Shutdown Sequencing Error Set		All
LOG	030B	Alarm Condition is Off		Normal
LOG	030A	Alarm Condition is On		Normal
LOG	0315	Communication Processor Startup		Normal
LOG	0308	Diag. Data Definition Error	Data 1: Diagnostic data type (alarm, warning, or error)	Normal
LOG	0309	Diag. Data Processing Error	Data 1: Diagnostic data type (alarm, warning, or error)	Normal
LOG	319	Log Flooding Condition OFF		Normal
LOG	318	Log Flooding Condition ON	Data 1: Event ID	Normal
LOG	0314	Shutdown Processing		Normal
LOG	0316	Spec. Evt Counters Cleared		Normal
LOG	0317	Status Counters Cleared		Normal
LOG	030D	Warning Condition is Off		Normal
LOG	030C	Warning Condition is On		Normal
LOG	0311	Averaging Data CF Write		All
LOG	0300	Compact Flash Operational Issue	Error occurred while saving logs to the compact flash card. If this message is frequently displayed, please contact S&C	All
LOG	0313	Daily High/Low CF Write		All
LOG	0302	DNP Irregularity		All
LOG	0305	High Volume Event Storage to CF	Writing to the compact flash file has been rescheduled because event log input buffer is full	All
LOG	0307	Invalid Log Request		All
LOG	0301	Logging Overflow	Number of events logged per unit of time has reached or exceeded the limit. Internal identification of last events is supplied in the data columns. Please contact S&C Data 1: Event ID Data 2: Event ID Data 3: Event ID Data 4: Event ID	All
LOG	0310	Next Averaging Period		All
LOG	0312	Next Daily High/Low Period		All
LRM	190F	All Tests Performed		Normal
LRM	1914	Closed Successfully and GP Active		Normal
LRM	1913	Command Rejected by ATX or Line Faulted	Data 1: Command Rejected by ATX Data 2: Blocked by Synch Check Data 3: PulseClosing Detected Data 4: Fault Detected in Closing	Normal
LRM	1916	GP Change While Timing Detected		Normal
LRM	1915	HLT Detected		Normal
LRM	190A	Loop Restoration Clear Manual Operations		Normal
LRM	190B	Loop Restoration Close in Profile	Data 1: Closing Profile	Normal
LRM	1901	Loop Restoration Disabled		Normal
LRM	1900	Loop Restoration Enabled		Normal
LRM	1903	Loop Restoration Not Ready		Normal
LRM	1907	Loop Restoration Not Reconfigured		Normal
LRM	1905	Loop Restoration Not Timng		Normal
LRM	1902	Loop Restoration Ready		Normal
LRM	1906	Loop Restoration Reconfigured		Normal

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Category	Hex Code	Description	Definition	Logging Level
LRM	1904	Loop Restoration Timing		Normal
LRM	190D	Manual Lever Reenable Detected		Normal
LRM	190E	Manual Operation Detected		Normal
LRM	190C	Maximum Time for Loop Restoration Reached		Normal
LRM	1917	Operation Delayed by Low Energy Detected		Normal
LRM	1909	Result of Test Indeterminate	Data 1: Test Number	Normal
LRM	1911	Resume Test	Data 1: Step Data 2: Test Number	Normal
LRM	1908	Skip Test On Close Command Rejected	Data 1: Test Number Data 2: DPR Delayed Return Code Data 3: DPR Return Code	Normal
LRM	1912	Skip Test On No Voltage	Data 1: Test Number	Normal
LRM	1910	Suspend Test	Data 1: Step Data 2: Test Number	Normal
PNG	A0FB	Pulse Analysis Complete	Data 1: Pole Name Data 2: Analysis result Data 3: Analysis result details. PNG analysis result: 0 = Feeder unfaulted 1 = Feeder faulted 2 = Analysis invalid	Normal
PNG	A0FC	Pulse Analysis Data	Data 1: Predicted feeder current, amperes Data 2: Pulse closing angle, per unit	Normal
PRO	A081	Close Authorized	Synch check succeeded Data 1: Maximum voltage difference, volts Data 2: Maximum angle difference, degrees Data 3: Side X and Y frequency difference, hertz	Normal
PRO	A082	Close Inhibited	Synch check failed Data 1: Maximum voltage difference, volts Data 2: Maximum angle difference, degrees Data 3: Side X and Y frequency difference, hertz	Normal
PRO	A072	Cold Load Element in Cooling State	Data 1: Relay type Data 2: Relay number Data 3: Cold load factor value	Normal
PRO	A073	Cold Load Element in Delay to Reset	Data 1: Relay type Data 2: Relay number Data 3: Cold load factor value	Normal
PRO	A071	Cold Load Element in Delay to Set	Data 1: Relay type Data 2: Relay number Data 3: Cold load factor value	Normal
PRO	A074	Cold Load Element in Warming State	Data 1: Relay type Data 2: Relay number Data 3: Cold load factor value	Normal
PRO	A06F	Current Above Cutoff	Protective element should start timing to trip Data 1: Relay type Data 2: Relay number Data 3: Driver value (current)	Normal
PRO	A070	Current Below Cutoff	Protective element should start timing to reset Data 1: Relay type Data 2: Relay number Data 3: Driver value (current)	Normal

Category	Hex Code	Description	Definition	Logging Level
PRO	A06E	Current Below Lockout Threshold	Testing is possible Data 1: Relay type Data 2: Relay number Data 3: Driver value (current)	Normal
PRO	A19C	Current X>Y		Normal
PRO	A19D	Current X>Y Not Detected		Normal
PRO	A19A	Current Y>X		Normal
PRO	A19B	Current Y>X Not Detected		Normal
PRO	A079	Direct Element Ground Fault Mode		Normal
PRO	A07A	Direct Element Phase Fault Mode	Data 1: Phase component of fault torque Data 2: Residual ground component of fault torque Data 3: Phase component of pre-fault torque Data 4: Residual ground component of pre-fault torque	Normal
PRO	A092	Directional Element Disabled	Overcurrent elements are not under fault directional supervision	Normal
PRO	A091	Directional Element Enabled	Overcurrent elements are under fault directional supervision	Normal
PRO	A07B	Directional Element Fault on X	Data 1: Phase component of fault torque Data 2: Residual ground component of fault torque Data 3: Phase component of pre-fault torque Data 4: Residual ground component of pre-fault torque	Normal
PRO	A07C	Directional Element Fault on Y		Normal
PRO	A098	Directional Element Inactive		Normal
PRO	A078	Directional Element Reset	Overcurrent elements are fully reset	Normal
PRO	A080	Fault Directional Indeterminate	Data 1: Fundamental RMS voltage on Side X, Pole 1 Data 2: Fundamental RMS voltage on Side X, Pole 2 Data 3: Fundamental RMS voltage on Side X, Pole 3	Normal
PRO	A096	Good Source Detected	Universal voltage element asserted Data 3: Positive sequence (voltage)	Normal
PRO	A097	Good Source Not Detected	Universal voltage element reset Data 3: Positive sequence (voltage)	Normal
PRO	A06D	High Current Lockout	IntelliRupter proceeded to lockout with no further testing Data 1: Relay type Data 2: Relay number Data 3: Driver value (current)	Normal
PRO	A094	Initial Settings Group State	Sequence Coordination element is in Initial Settings Group State	Normal
PRO	A19E	ITII Overcurrent Pole 1		Normal
PRO	A19F	ITII Overcurrent Pole 1 Cleared		Normal
PRO	A1A0	ITII Overcurrent Pole 2		Normal
PRO	A1A1	ITII Overcurrent Pole 2 Cleared		Normal
PRO	A1A2	ITII Overcurrent Pole 3		Normal
PRO	A1A3	ITII Overcurrent Pole 3 Cleared		Normal
PRO	A075	Log Cold Load Factor Value	Logged when changes Data 1: Relay type Data 2: Relay number Data 3: Cold load factor value	Normal

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
PRO	A06C	Log Max Value	Maximum driver value in tripped state Data 1: Relay type Data 2: Relay number Data 3: Driver value (generic, according to relay type)	Normal
PRO	A0C7	PRO Significant Error		Normal
PRO	A065	Protective Element Enters Timing State	Data 1: Relay type Data 2: Relay number Data 3: Driver value (generic, according to relay type)	Normal
PRO	A066	Protective Element Overtravel State	Data 1: Relay type Data 2: Relay number Data 3: Driver value (generic, according to relay type)	Normal
PRO	A069	Protective Element Reached 20% Milestone	Data 1: Relay type Data 2: Relay number Data 3: Driver value (generic, according to relay type)	Normal
PRO	A06A	Protective Element Reached 50% Milestone	Data 1: Relay type Data 2: Relay number Data 3: Driver value (generic, according to relay type)	Normal
PRO	A06B	Protective Element Reached 80% Milestone	Data 1: Relay type Data 2: Relay number Data 3: Driver value (generic, according to relay type)	Normal
PRO	A068	Protective Element Reached Reset State	Data 1: Relay type Data 2: Relay number Data 3: Driver value (generic, according to relay type)	Normal
PRO	A067	Protective Element Reached Tripped State	Data 1: Relay type Data 2: Relay number Data 3: Driver value (generic, according to relay type)	Normal
PRO	A076	Pulse Authorized - Backfeed Allowed	Backfeed detected but pulsing not blocked	Normal
PRO	A07D	Pulse Finding Trip	Pulsefinding generated trip signal	Normal
PRO	A077	Pulse Inhibited - Backfeed Prohibits	Backfeed detected and pulsing is blocked on backfeed	Normal
PRO	A085	Sectionalizer in Fault State		Normal
PRO	A087	Sectionalizer in First LOV State		Normal
PRO	A084	Sectionalizer in LOV State		Normal
PRO	A08A	Sectionalizer in OC Reset State		Normal
PRO	A088	Sectionalizer in OC Timing State		Normal
PRO	A086	Sectionalizer in Tripped State		Normal
PRO	A089	Sectionalizer in UV Timing State		Normal
PRO	A083	Sectionalizer Not in LOV State		Normal
PRO	A1F7	SEF Not Timing		Normal
PRO	A1F9	SEF Not Tripped		Normal
PRO	A1F6	SEF Timing		Normal
PRO	A1F8	SEF Tripped		Normal
PRO	A1FA	SEF Trip to Lockout		Normal
PRO	A1FB	SEF Trip to Lockout Off		Normal

Category	Hex Code	Description	Definition	Logging Level
PRO	A095	Sequence Coordination Shift State	Request to move to slower TCC curves generated by Sequence Coordination element	Normal
PRO	A093	Sequence Coordination Waiting State	Sequence Coordination element in Waiting State	Normal
PRO	A08C	Voltage Source Loss of Energy Reset	Return of control energy	Normal
PRO	A08B	Voltage Source Loss of Energy Trip	Loss of control energy led to IntelliRupter trip	Normal
PRO	A08F	GTD Trip Activation State		Extended
PRO	A090	GTD Trip Inhibit State		Extended
PRO	A08D	NTD Trip Activation State		Extended
PRO	A08E	NTD Trip Inhibition State		Extended
PRO	A099	SEFTD Trip Activation State	Data 1: 1 Second Average of Positive Sequence Voltage Data 2: Residual Ground Reference Voltage Data 3: Residual Ground Voltage	Extended
PRO	A09A	SEFTD Trip Inhibition State	Data 1: 1 second average of positive sequence voltage Data 2: Residual ground reference voltage Data 3: Residual ground voltage	Extended
RTD	0A0C	Communication Processor Application Restart		Normal
RTD	0A06	Emergency Shutdown Detected		Normal
RTD	0A07	Emerg. Shut. Notified All		Normal
RTD	0A04	Error-Clearing Sequence End		Normal
RTD	0A05	Error-Clearing Sequence Retried		Normal
RTD	0A03	Error-Clearing Sequence Start		Normal
RTD	0A0B	Inconsistent Shutdown Indications		Normal
RTD	0A00	Incorrect RTD Event Information		Normal
RTD	0A08	Orderly Shutdown Detected		Normal
RTD	0A09	Orderly Shutdown Notified All		Normal
RTD	0A02	SCADA Command Disabled		Normal
RTD	0A01	SCADA Command Enabled		Normal
RTD	0A0A	Shutdown Cancelled, Restart App		Normal
SUM	050A	Applied Settings Successfully	Settings applied and active	Normal
SUM	0503	BMM Backup Configuration Unsuccessful	Issue encountered storing user settings to base memory module. Settings were not successfully stored	Normal
SUM	0514	BMM Not Ready	Base memory module cannot be accessed	Normal
SUM	0501	BMM Setting Restoration Unsuccessful	Issue encountered restoring user settings from base memory module. Settings were not restored	Normal
SUM	0505	CF Backup Settings Save Unsuccessful	Issue encountered storing user settings to compact flash file. Settings were not successfully stored	Normal
SUM	0507	CF Restoration Settings Unsuccessful	Issue encountered restoring user settings from a compact flash file. Settings were not restored	Normal
SUM	050D	Refresh Settings Buffer Issue	Issue encountered while refreshing settings buffer. Values on the settings screens may not accurately reflect active settings	Normal
SUM	050C	Refresh Settings Buffer Successfully	Settings buffer has been refreshed with the active settings	Normal
SUM	050F	Register Callback Issue	Issue encountered during application initialization, preventing settings-related functions from being successfully registered with Setup Manager	Normal
SUM	0518	Register Command to Block Issue	Issue encountered during application initialization, preventing command to block from being successfully registered with Setup Manager	Normal
SUM	0510	Register DNP Special Function Warning	Issue encountered during application initialization, preventing functionality of one or more DNP commands	Normal

Data Log Messages

Category	Hex Code	Description	Definition	Logging Level
SUM	0511	Register Non-Settings Block Issue	Issue encountered during application initialization, preventing a group of non-settings from being successfully registered with Setup Manager	Normal
SUM	050E	Register Settings Block Issue	Issue encountered during application initialization, preventing a group of settings from being successfully registered with Setup Manager	Normal
SUM	0519	Request BMM Backup Received	Setup Manager received request to back up base memory module from another subsystem	Normal
SUM	050B	Settings Application Unsuccessful	All settings were not successfully applied. This most commonly occurs when settings are transferred from the microcontroller to the digital signal processor	Normal
SUM	051A	Settings Backup Success Alarm	User-configurable settings successfully stored to base memory module	Normal
SUM	051D	Settings Backup Unsuccessful Alarm	Issue encountered storing user-configurable settings to base memory module. Settings were not successfully stored	Normal
SUM	051E	Settings Mismatch Warning OFF		Normal
SUM	051F	Settings Mismatch Warning ON	Data 1: SUM Error Code Data 2: Called Function Return Data 3: Step	Normal
SUM	051C	Settings Restore Success Alarm	User-configurable settings successfully restored from base memory module	Normal
SUM	051B	Settings Restore Unsuccessful Alarm	Issue encountered restoring user-configurable settings from base memory module. Settings were not successfully restored	Normal
SUM	0509	Settings Validation Unsuccessful	All settings are not valid and cannot be applied Data 1: Settings group Data 2: Instance Data 3: Error	Normal
SUM	0517	User Access Denied	Access to write a virtual memory location denied Data 1: Access denied reason Data 2: Optional access group	Normal
SUM	0500	User Configuration Backed Up to BMM	User-configurable settings successfully stored to base memory module	Normal
SUM	0504	User Configuration Backed Up to CF	User-configurable settings successfully stored to compact flash file	Normal
SUM	0502	User Configuration Restored From BMM	User-configurable settings successfully restored from base memory module	Normal
SUM	0506	User Configuration Restored to CF	User-configurable settings successfully restored to compact flash file	Normal
SUM	0512	User Login Access Denied	Access to Login denied Data 1: Access denied reason	Normal
SUM	0513	User Logout Access Denied	Access to Logout denied Data 1: Access denied reason	Normal
SUM	0516	User Session Ended	User session terminated Data 1: User ID Data 2: Session ended reason	Normal
SUM	0515	User Session Started	User session started Data 1: User ID	Normal
SUM	0508	Validate Settings Successful	Settings valid	Normal
UTL	1801	GPS Disabled by IntelliLINK		Normal
UTL	1800	GPS Enabled by IntelliLINK		Normal
WFC	A165	Trigger Ignored - WFC Frozen		Normal

Category	Hex Code	Description	Definition	Logging Level
WFC	A163	Waveform Capture Frozen		Normal
WFC	A161	Waveform Capture Secondary Trigger		Normal
WFC	A160	Waveform Capture Triggered		Normal
WFC	A164	Waveform Capture Unfrozen		Normal
WFC	A162	Primary Capture Started		Extended
WFC	A166	Secondary Capture Started		Extended
WFC	A167	Trigger Ignored - Insufficient Space		Extended
WFC	A15E	Waveform Capture Initialized		Extended
WFC	A15F	WFC Pre-Event Filled		Extended
WFM	1707	WiFi Intrusion Active		Normal
WFM	1701	WiFi Intrusion Attempt	WiFi module alarm indicates a replay attack or authentication failure	Normal
WFM	1708	WiFi Intrusion Cleared		Normal
WFM	1704	WiFi User Connected		Normal
WFM	1705	WiFi User Disconnected		Normal

