

PREDATOR HIGHSITE CONTROLLER MESSAGE PROTOCOL
19/07/2005

Messages are sent to and from the computer using an RS232 standard link

MESSAGE FORMAT

BAUD : 9600
DATA BITS : 8
STOP BITS : 1

MESSAGE STRUCTURE

ASCII readable characters

Character	Definition
SPACE	For Readability only – Not in string makeup of protocol
S	Start of text = 0x02
M	Message Type (2 digits)
I	Highsite identity number (3 digits)
O	Outstation identity number (5 digits)
C	Route through this channel (3 digits)
YYYY	Reprogram line number start
ZZZZ	Reprogram line number end
XXX..X	Free text/data
UUU	Status of Highsite
MT QXYZ GG CCC	MT QXYZ GG CCC As Per Ademco Contact ID Protocol
AAA	Alarm information 3 digits Standard Predator Alarm
BBBB	Outstation Status
MMM	Command to an outstation
T	Message Terminator = 0x0D
P	Predator message type – ASCII character ‘P’

MESSAGES FROM HIGHSITE (TO CONTROL ROOM)

Message No	Description	Format
		0 1 23 456 78901 2345 1
30	Reply to status check/reprogram/Reset	S P MM III UUU T
31	Acknowledge command sent to outstation	S P MM III OOOO BBBB T
32	Outstation Status Reply	S P MM III OOOO BBBB T
33	No reply from outstation	S P MM III OOOO BBBB T
34	Channel Busy	S P MM III OOOO BBBB T
35*	Alarm from Outstation Standard Predator Alarm	S P MM III OOOO AAA BBBB T
36*	Alarm from Outstation Ademco Contact ID Refer DIGITAL COMMUNICATIONS STANDARD - ADEMCO CONTACT ID PROTOCOL	S P MM III OOOO MTQXYZGGCCCT

Messages marked * require the control room to send the acknowledge (08) message back to the highsite controller

MESSAGES TO HIGHSITE (FROM CONTROL ROOM)

Message No	Description	Format
01	Hightsite Status Check	S P MM III T
02	Query Hightsite for alarms	S P MM III T
04	Reprogram Hightsite	S P MM III YYYY ZZZZ XXXXXX T
05	Query an outstation	S P MM III OOOOO CCCT
06	Command an outstation	S P MM III OOOOO MMM CCCT
07	Reset Hightsite	S P MM III T
08	Acknowledge Alarm	S P MM III T

Eg. Command an outstation

S P 06 001 12345 081 000 T

Through Hightsite no 111

To outstation 12345

Pin 8 High

S = 2 decimal, **T** = 13 decimal= 0x0D Hex

ALARM CODES - STANDARD PREDATOR ALARMS (Message 35)

The digits AAA contain the type of alarm received from the outstation. The first digit is always 0 and is for expansion

CODE	DESCRIPTION	STANDARD ALARM
001	Pin 1 has gone low	Panic
011	Pin 1 has gone high	
002	Pin 2 has gone low	Alarm
012	Pin 2 has gone high	
003	Pin 3 has gone low	Telemetry 1
013	Pin 3 has gone high	
004	Pin 4 has gone low	AC Restore
014	Pin 4 has gone high	AC Fail
005	Pin 5 has gone low	Telemetry 2
015	Pin 5 has gone high	
006	Pin 6 has gone low	Telemetry 3
016	Pin 6 has gone high	
007	Pin 7 has gone low	Telemetry 4
017	Pin 7 has gone high	
008	Pin 8 has gone low	Lock-up (Closing)
018	Pin 8 has gone high	Open Up (Opening)
020	Battery is low	Battery Low
030	Power has been restored	Power Restored
040	Zvei1 5-tone call received	
050	Panic from remote control	
060	Analog value low (Analog I/O module)	
061	Analog value high (Analog I/O module)	
062	Reserved (Analog I/O module)	
063	Reserved (Analog I/O module)	
064	Analog value change (Analog I/O)	

065	Analog time report (Analog I/O module)	
070	Alarm from Pathfinder Mobile radio	
080	24 Hour alarm update	
090 to 099	Remote panic buttons	Panic
049	Guard radio update	

ALARM INFORMATION ADEMCO CONTACT ID (Message 36)

The Ademco Format MT QXYZ GG CCC is sent as specified in the document

Digital Communications Standard – Ademco ® Contact ID Protocol for Alarm System Communications

www.ademco.com

Published by Security Industry Association SIA DC-05-1999.09

The units own ID is sent instead of the Ademco Contact ID ACCT account number (5 digits instead of 4)

The message type (MT) is always set to 18 as per Ademco Contact ID

IRC Highsite/Base Station Diagnostics and Programming Tool

IRC Provides a programmer and diagnostic software tool for the Predator Base Station and Parrot Repeater.

The Program is called HIGHSITE.EXE and can be found on the IRC Install CD

The screenshot shows the 'IRC PREDATOR HIGHSITE - DIAGNOSTICS AND PROGRAMMING' window. It features several sections for user input and control:

- Highsite Controller:** Includes a 'Highsite Number' text box with the value '001' and a 'CHECK HIGHSITE' button.
- Selected Comport:** A group box containing four radio buttons labeled 'COM1', 'COM2', 'COM3', and 'COM4'.
- Outstation:** A section with an 'Outstation ID' text box containing '00002' and a 'CLEAR LIST' button. Below this is a grid of 16 buttons for pins 1 through 8, each with 'High' and 'Low' options.
- Incoming and Outgoing Messages:** A large empty rectangular area for displaying communication logs.
- Control and Status:** A 'Query Outstation' button, a checked 'ACK ALARMS' checkbox, and 'PROGRAMMING' and 'QUIT' buttons.
- Footer:** A 'CLEAR' button and a long empty text input field.

BASE STATION DIAGNOSTICS SCREEN

Programming Options

Outstations To Respond to: _____ Base Number:

IDENT
 IP Address
 Port
 Comms Medium

SW1-4 SW5-8

PRIORITISE ALARMS
 REMOVE DUPLICATE ALARMS

PARROT REPEATER
 HIGHSITE
 BASE STATION

Transmitter Preamble Time milli-seconds

Take alarm from any Outstation after Attempts

Alarm Download Option

BASE STATION/PARROT PROGRAMMING SCREEN