Stalker Pro II Data Communications and Formats

For each Speed ID reported (when speeds are > 999.9) – 15 ASCII bytes:

1	Speed ID:	ASCII 7: Primary – Last/Live Target Speed Secondary – Locked Speed ASCII 8: Primary – Peak Speed Secondary – Highest Peak Speed ASCII 9: Primary – Hit Speed Secondary - none
2	Zone Status:	Bit 7 = 0 (to force ASCII character) Bit 6 = 1 (to force ASCII character) Bit 5 = always 0 Bit 4 = always 0 Bit 3 = always 0 Bit 2 = always 0 Bit 1 = Target Speed Direction (1 = inbound, 0 = outbound) Bit 0 = Transmit = 1, Hold = 0
3	Primary speed thousands digit (ASCII)	
4	Primary speed hundreds digit (ASCII)	
5	Primary speed tens digit (ASCII)	
6	Primary speed ones digit (ASCII)	
7	Primary speed tenths digit (ASCII)	
8	Secondary speed thousands digit (ASCII space)	
9	Secondary speed hundreds digit (ASCII space)	
10	Secondary speed tens digit (ASCII space)	
11	Secondary speed ones digit (ASCII space)	
12	Secondary speed tenths digit (ASCII space)	
13	Reserved (ASCII space)	
14	Reserved (ASCII space)	
15	Reserved (ASCII space)	
Last Byte	ASCII Carriage Return = 0x0D	

Col Format

When Resolution = ones:

Byte #	Content
1	Speed hundreds digit (ASCII)
2	Speed tens digit (ASCII)
3	Speed ones digit (ASCII)
4	ASCII Colon = 0x3A
5	Carriage Return (0x0D)

When Resolution = tenths:

Byte #	Content
1	Speed hundreds digit (ASCII)
2	Speed tens digit (ASCII)
3	Speed ones digit (ASCII)
4	Speed tenths digit (ASCII)
5	Carriage Return (0x0D)

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888-STALKER

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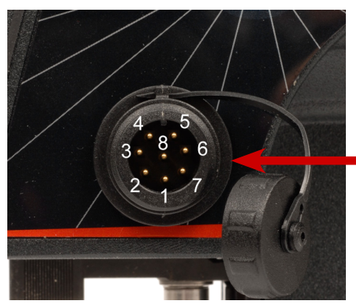

Stalker Pro II 8-Pin Interface Connector pin-out		
1	Ground	Ground
2	Voltage input	External voltage input, 6 VDC to 16 VDC
3	7V Out	Output (limited to 50 ma)
4	RS-485-A	Transmit data stream
5	RS-485-B	Transmit data stream
6	Aux input	Stopwatch trigger input or remote radar trigger input
7	RS-232 RX	Not used
8	RS-232 TX	Transmit data stream

Transmitting Speed Data from the Serial Port

The optional RS-232 Serial Cable (#155-2284-00) or Y Cable (#155-2278-00) is required for data communications between the 8-Pin Interface Connector on the side of the gun body and speed signs, computers, printers, and other electronic devices. If a 9-pin D serial extender cable is required, use a standard (straight-through) computer cable, NOT a null-modem cable which crosses the transmit and receive signals.

The serial port configuration on the radar is fixed at 8 data bits, no parity, and 1 stop bit; so the user must ensure that his receiving device is also configured for those values. The serial port baud rate on the radar is configurable in the range from 1200 through 38400 with a default setting of 9600 baud.

The message contents of the available Serial Port Formats are defined below. An A or A1 Format message is very simple and contains only a single speed value: either last speed, peak speed, or hit speed. To ensure that each message in this format is sent out before time to start the next one, the Serial Port Speed should be set for 9600 or higher.

A bE Format message can contain from one to three speed values as well as configuration and status information. If the bE Format message is reporting one speed, the Serial Port Speed should be set for 19200 or higher. For a bE Format message reporting two or three speeds, the Serial Port Speed should be increased to 38400.

A Col Format message also contains only a single speed value: the peak speed if peak speeds are enabled or the last/live speed if not. New messages are sent whenever the speed changes (up to 25 messages per second) and/or every 1/3 second if the speed remains the same.

A Format

When Resolution = ones:

Byte #	Content
1	Speed hundreds digit (ASCII)
2	Speed tens digit (ASCII)
3	Speed ones digit (ASCII)
4(+)	Carriage Return (0x0D) or alternate termination string determined by the Message Termination setting

When Resolution = tenths:

Byte #	Content
1	Speed hundreds digit (ASCII)
2	Speed tens digit (ASCII)
3	Speed ones digit (ASCII)
4	Decimal Point (0x2E)
5	Speed tenths digit (ASCII)
6(+)	Carriage Return (0x0D) or alternate termination string determined by the Message Termination setting

A1 Format

When Resolution = ones:

Byte #	Content
1	Speed thousands digit (ASCII)
2	Speed hundreds digit (ASCII)
3	Speed tens digit (ASCII)
4	Speed ones digit (ASCII)
5(+)	Carriage Return (0x0D) or alternate termination string determined by the Message Termination setting

When Resolution = tenths:

Byte #	Content
1	Speed thousands digit (ASCII)
2	Speed hundreds digit (ASCII)
3	Speed tens digit (ASCII)
4	Speed ones digit (ASCII)

Stalker Pro II Data Communications and Formats

5	Decimal Point (0x2E)
6	Speed tenths digit (ASCII)
7(+)	Carriage Return (0x0D) or alternate termination string determined by the Message Termination setting

bE Format

Byte #	Content	
1	Message type = 0x88	
2	Unit Config:	Bit 7 = 0 (to force ASCII character) Bit 6 = 1 (to force ASCII character) Bit 5 = unused Bit 4 = Resolution: ones = 0, tenths = 1 Bit 3 = always 0 for directional radar Bit 2 = always 0 for stationary radar Bit 1 = Peak Speed not enabled = 0; Peak Speed enabled = 1 Bit 0 = always 0
3	Unit Status:	Bit 7 = 0 (to force ASCII character) Bit 6 = 1 (to force ASCII character) Bit 5 = unused Bit 4 = unused Bit 3 = always 0 Bit 2 = always 1 Bit 1 = always 0 Bit 0 = always 0
4	ASCII 0 or space - disregard	
5	ASCII 0 or space - disregard	
6	ASCII 0 or space - disregard	
7	Number of Speeds Reported (ASCII 1, 2 or 3) = One for Last Speed + One for Peak Speed if enabled + One for Hit Speed if enabled	

For each Speed ID reported (when speeds are <= 999.9) – 15 ASCII bytes:

1	Speed ID:	ASCII 4: Primary – Last/Live Target Speed Secondary – Locked Speed ASCII 5: Primary – Peak Speed Secondary – Highest Peak Speed ASCII 6: Primary – Hit Speed Secondary - none
2	Zone Status:	Bit 7 = 0 (to force ASCII character) Bit 6 = 1 (to force ASCII character) Bit 5 = always 0 Bit 4 = always 0 Bit 3 = always 0 Bit 2 = always 0 Bit 1 = Target Speed Direction (1 = inbound, 0 = outbound) Bit 0 = Transmit = 1, Hold = 0
3	Primary speed hundreds digit (ASCII)	
4	Primary speed tens digit (ASCII)	
5	Primary speed ones digit (ASCII)	
6	Primary speed tenths digit (ASCII)	
7	Secondary speed hundreds digit (ASCII space)	
8	Secondary speed tens digit (ASCII space)	
9	Secondary speed ones digit (ASCII space)	
10	Secondary speed tenths digit (ASCII space)	
11	Reserved (ASCII space)	
12	Reserved (ASCII space)	
13	Reserved (ASCII space)	
14	Reserved (ASCII space)	
15	Reserved (ASCII space)	