

REV	DESCRIPTION	DATE	APPROVED
A	UPDATED CONVERTER CONNECTIONS AND ADDED CABLE NOTES	06/07	CA

NOTES:
 SIGNAL PATH LIMITATIONS:
 THE MAXIMUM COMBINED CABLE LENGTH, STARTING AT THE RS-485 END OF THE CONVERTER(7) TO ALL TARGETS(1) MUST NOT EXCEED 4000 FT. [1219M]

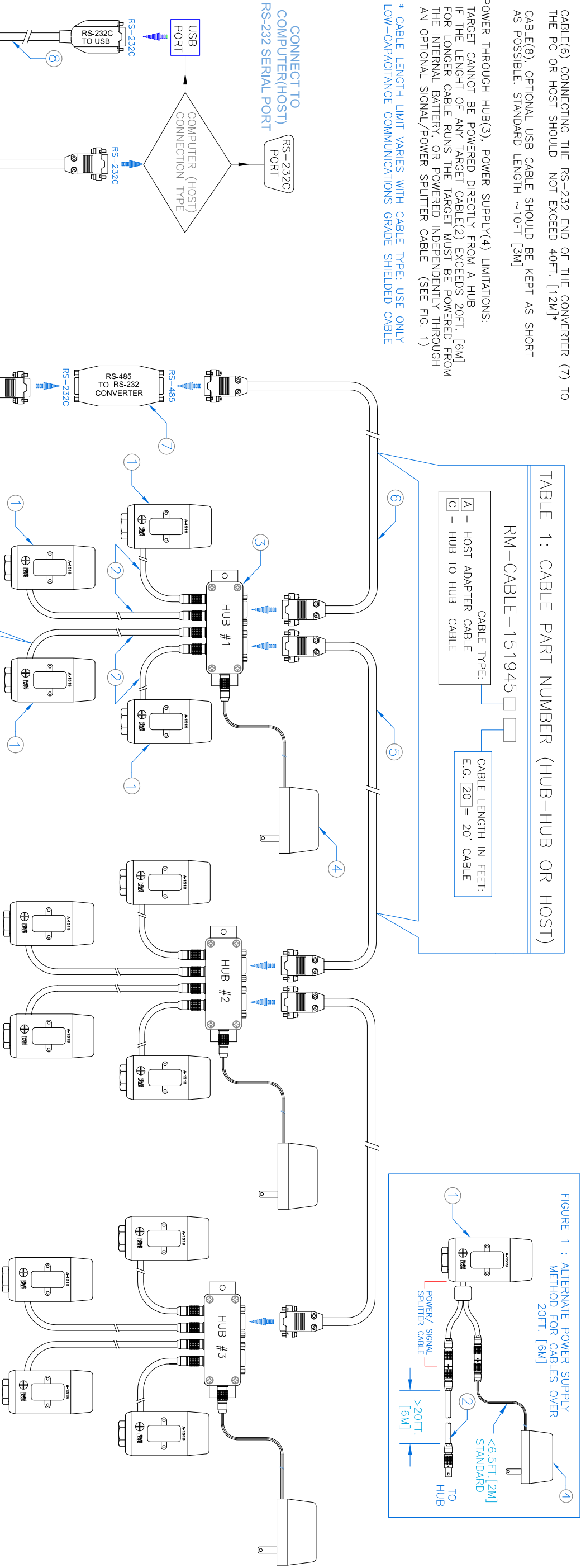
CABLE(6) CONNECTING THE RS-232 END OF THE CONVERTER (7) TO THE PC OR HOST SHOULD NOT EXCEED 40FT. [12M]*
 CABLE(8), OPTIONAL USB CABLE SHOULD BE KEPT AS SHORT AS POSSIBLE. STANDARD LENGTH ~10FT [3M]

POWER THROUGH HUB(3), POWER SUPPLY(4) LIMITATIONS:
 TARGET CANNOT BE POWERED DIRECTLY FROM A HUB
 IF THE LENGTH OF ANY TARGET CABLE(2) EXCEEDS 20FT. [6M]
 FOR LONGER CABLE RUNS THE TARGET MUST BE POWERED FROM THE INTERNAL BATTERY, OR POWERED INDEPENDENTLY THROUGH AN OPTIONAL SIGNAL/POWER SPLITTER CABLE (SEE FIG. 1)

* CABLE LENGTH LIMIT VARIES WITH CABLE TYPE: USE ONLY LOW-CAPACITANCE COMMUNICATIONS GRADE SHIELDED CABLE

TABLE 1: CABLE PART NUMBER (HUB-HUB OR HOST)

RM-CABLE-151945	CABLE TYPE: A - HOST ADAPTER CABLE C - HUB TO HUB CABLE	CABLE LENGTH IN FEET: E.G. [20] = 20' CABLE
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CONNECT TO COMPUTER(HOST) USB SERIAL PORT

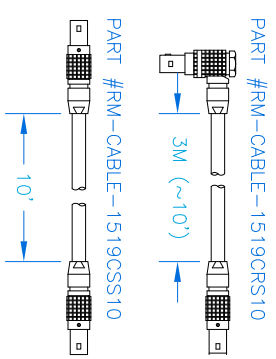


TABLE 2: CABLE PART NUMBER (TARGET TO HUB)

RM-CABLE-1519C	CABLE LENGTH IN FEET: E.G. [20] = 20' CABLE	PLUG TYPE, TARGET SIDE: S = STRAIGHT PLUG R = RIGHT ANGLE PLUG	PLUG TYPE, HUB SIDE: S = STRAIGHT PLUG
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NOTE: TO CONVERT METERS TO FEET: MULTIPLY LENGTH IN METERS BY 3.281 = FEET
 ROUND DISTANCE IN FEET TO THE NEAREST WHOLE FOOT (EX: SPECIFY 9.8' AS 10')

8	1	CONVERTER, RS-232C to USB 1.1	RM-HDWRE-GUC232A	IOGEAR	FOR USB ONLY	
7	1	CONVERTER, RS-485 to RS-232C	RM-HDWRE-4WSD9R	B&B ELECTRONICS	4WSD9R	
6	1	RS-485 HUB COMPUTER (HOST) CABLE, 10'	RM-CABLE-151945A10	HUI	SEET TABLE 1	
5	VARIABLES	RS-485 HUB INTERCONNECTING CABLE, 20'	RM-CABLE-151945C20	HUI	SEET TABLE 1	
4	VARIABLES	RS-485 HUB, POWER SUPPLY, 6VDC@2A	RM-TGTAC-151945PS	HUI		
3	VARIABLES	RS-485 FOUR PORT POWERED HUB	RM-TGTAC-A151945	HUI		
2	VARIABLES	TARGET CABLE (RS TYPE), 20'	RM-CABLE-1519CRS20	HUI	SEE TABLE 2	
1	VARIABLES	A-1519 UNITARGET	RM-TARGET-A1519	HUI		
ITEM	QTY	DESCRIPTION	HAMAR P/N	REV	MANUFACTURER	NOTES
		Mfg. per HUI Spec. 9201 Unless otherwise specified dimensions are in inches Decimal: .XX ±.01 .XXX ±.005 .XXXX ±.0005 Fraction: ±1/64				
		B CONFIDENTIAL: This Drawing, Design and/or Specifications are the property of Hamar Laser Instruments Inc. It shall not be discussed, disseminated or copied by any means, without the written consent of Hamar Laser Instruments Inc.	Title: RS-485, POWERED HUB CONNECTING MULTIPLE TARGETS			
		Material: —	Finish: —	Model: —	Ass'y: —	Date: 6/12/03
				Drawn: CA	Checked: CA	Date: —
				Aprvd: CA	Date: —	
		Scale: 1:1	Sheet: 1 of 1	Dwg No: RS485ASM-1	Rev: A	