B5376
PS-28X_Hand-Power-Cable

Connector 1		
Position #	**Function**	**Wire Color**
A	Vin+	red
B	Vin-	blue
D	Earth Ground	yellow/green
connector case	Shield	shield
3	CAN-Lo	brown
4	CAN-Hi	white
7	User A (USB 5V+)	pink
2	User B (USB Data-)	yellow
1	User C (USB Data+)	green
6	User D (USB Gnd)	gray

Connector 2		
Wire Color	**Position #**	**Function**
red	1	Vin+
blue	2	Vin-
yellow/green	9	Earth Ground
brown	6	CAN-Lo
white	5	CAN-Hi
pink	3	User A (USB 5V+)
yellow	4	User B (USB Data-)
green	7	User C (USB Data+)
gray	8	User D (USB Gnd)
	10	Filled Crimp

Part	Manufacturer	Mfr. P/N	Quantity	Description	Notes
Connector 1	Hirose	LF13WBP-11P	1	Circular Connector 7x2A + 4x10A SKT CNTS	B5375
Connector 2	Hirose	DF11-10DS-2C	1	Conn socket housing 10 position 2mm	
Crimps for Connector 2	Hirose	DF11-2428SC	10	Conn socket 24-28 AWG crimp	
Cable	Olflex/Lapp	U2170218	See Fig 3.	3x18AWG + 3TPx24AWG Sheilded Cable	
Urethane	Hardman	04024	1 packet	Urethane adhesive, purple-beige Recommended Dist: V.O. Baker	
Conductive Copper Tape	Kapton	CFT-1/4	See Note 1	1/4" x 18 yds Copper Conductive Tape	

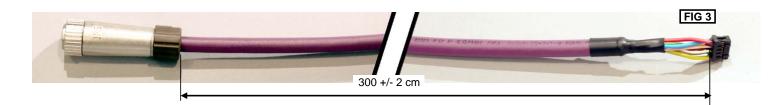| Rev	Updated	By	Comments
AA.00	2/11/2010	EK	Released
AA.01	3/17/2010	EK	Corrected connector 1 photo

FIG 1: Solder-filled Crimp

Notes

1) For Connector 1, use assembly instructions found in http://www.hirose.co.jp/cataloge_hp/e13600011.pdf pages 6-11.
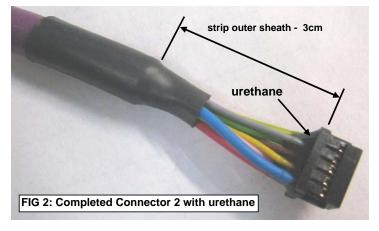   -Instead of using U-shaped shielding clamp in step 5, wrap folded back shielding tightly with 1/4" conductive copper tape until OD = 9.1 - 9.3mm.
2) Crimp a blank socket and fill end with solder for Connector 2, pin 10. No wire is connected. [This is a keying feature
that prevents the connector from plugging in the wrong way.] See Fig. 1.
3) At Connector 2, use urethane for better strain relief. See Fig. 2. Best applied with a syringe [McMaster P/N 7510A651(syringe) and 75165A677(tip)].
4) For the Hirose crimps in Connector 2, the edges of the large diameter wires may need to be trimmed slightly to be inserted.
5) All strain relief and dressing to be done with heat-shrink. Electrical tape is not acceptable.

FIG 3

300 +/- 2 cm

strip outer sheath - 3cm

urethane

FIG 2: Completed Connector 2 with urethane