



CUSTOMER NAME: **YOUR COMPANY** ASSY/PART NO.: **UP-2-U** PART REVISION: **2**

P.O. NO.	ISSUE DATE	ISSUED BY	JOB OR LOT NO.	LOT QTY	SCHEDULED SHIP DATE

BILL OF MATERIALS

I T E M	MFG	PART NO	DESCRIPTION	TOOL CODE	ASSY QTY	KIT QTY	KIT INT
1	Generic	201007WHT7	Wire, 20 AWG, UL1007 WHITE		2.6 ft		
2	Generic Generic	221007WHT7 or 221007/1569WHT7	Wire, 22 AWG, UL1007 or UL1007/1569, WHITE		13.7 ft		
3	AMP	2-520335-2 (L)	Term., Ultra Fast Flag .020X.187	057, 088	2 ea		
4	AMP	205205-2	Conn., 15 Pos. D-Sub, Rcpt		1 ea		
5	AMP	66504-4 (R)	Term., Socket 20-24 AWG	238, 707	11 ea		
6	Optek	OPB370T55	Interrupter		3 ea		
7	National	31-020469-A	PCB (encoder)		1 ea		
8	National	31-020466-A	PCB (detector & home)		1 ea		
9	Panduit	BC2S-S10-C	Ty-wrap clamp		3 ea		
10	Panduit	PCM-E1	Wire Marker		1 ea		
11	Panduit	PCM-E2	Wire Marker		1 ea		
12	Panduit	PLT1M-XMR	Tie Wrap, 4"		1 ea		
13	Panduit	PLT1M-XMRO	Tie Wrap, 4", BLK		6 ea		
14	Ziptape	THS-205-727	Label. 1"x1.5"		2 ea		
15	NewBest Assc. Bag	46GPAS 104-6-22	ESD plastic bag, 4X6		1 ea		
16	Humiseal	1B73	Conformal Coating		.38 oz.		
17	Humiseal	521	Thinner		.19 oz.		
18	AMP	205980-1	Kit Screw Retainer		1 ea		
19	UL UL UL	E231093/25 E231093/50 E231093/100	Label, Qty 25 Label, Qty 50 Label, Qty 100		1 ea per shippin g box		

TOOLING LIST

TOOL CODE	MFG	PART NO	ICTC	DESCRIPTION	QTY IN HOUSE
57	AMP	90390-3	000057	HAND TOOL HEAD FOR 58078-3	2
88	AMP	58078-3	000088	HANDTOOL, FRAME	4
144	AMP	58448-2	000144	HANDTOOL-CERTI-CRIMP	1
238	AMP	466900-1	000238	STRIP/CRIMP APPL. (LEASE--NOV 94)	1
707	AMP	466422-2	000707	APPLICATOR, K-PRESS (LEASE-OCT-96)	1

LABELING REQUIREMENTS

Using Label above and the Label Maker, print 2 labels with the following information:

END-USE
DESCRIPTION

UP-2-U
REV. 2



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022	Install jackscrews and clips (BOM item #18) to D-sub. NOTE: INSURE JACKSCREWS ARE FULLLY SEATED IN CLIPS.	
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FIRST PIECE INSPECTION CHECK OF ABOVE STEPS REQUIRED:

TEST - FINAL INSPECTION - SHIP

023	100% Test assemblies, using Part-specific test fixture and complying with Test Steps 1 through 8 and 11 and 12 of Part-specific Test Procedure. Steps 5 and 7, and 6 and 8 can be combined for this test only. Place marker dot on label if assembly passes this test. If assembly passes all steps of test, stamp or mark FCT with white ink on component side of Encoder board per Att. 'A'. NOTE: IF USING STAMP, PLEASE ADD RECONDITIONING FLUID TO STAP PAD TO KEEP IT FROM HARDENING.
024	100% Inspection of assemblies tested, per Att. A, and workmanship per IPC/WHMA-A-620 & IPC-A-610.
025	Place in bag, align on layers of bubble wrap, pack for shipment. NOTE: EACH BOX MUST HAVE THE APPROPRIATE UL LABEL AFFIXED TO IT, AND THIS STEP MUST HAVE Q.A. VERIFICATION.
	Materials moves and handling.



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APPROVED FOR USE:

_____	DATE _____	_____	DATE _____
Technical Services		Manufacturing	
_____	DATE _____	_____	DATE _____
Quality Control		Purchasing	
_____	DATE _____	_____	DATE _____
Production (Group Leader)		Data Entry	

HISTORY OF MASTER TRAVELER CHANGES

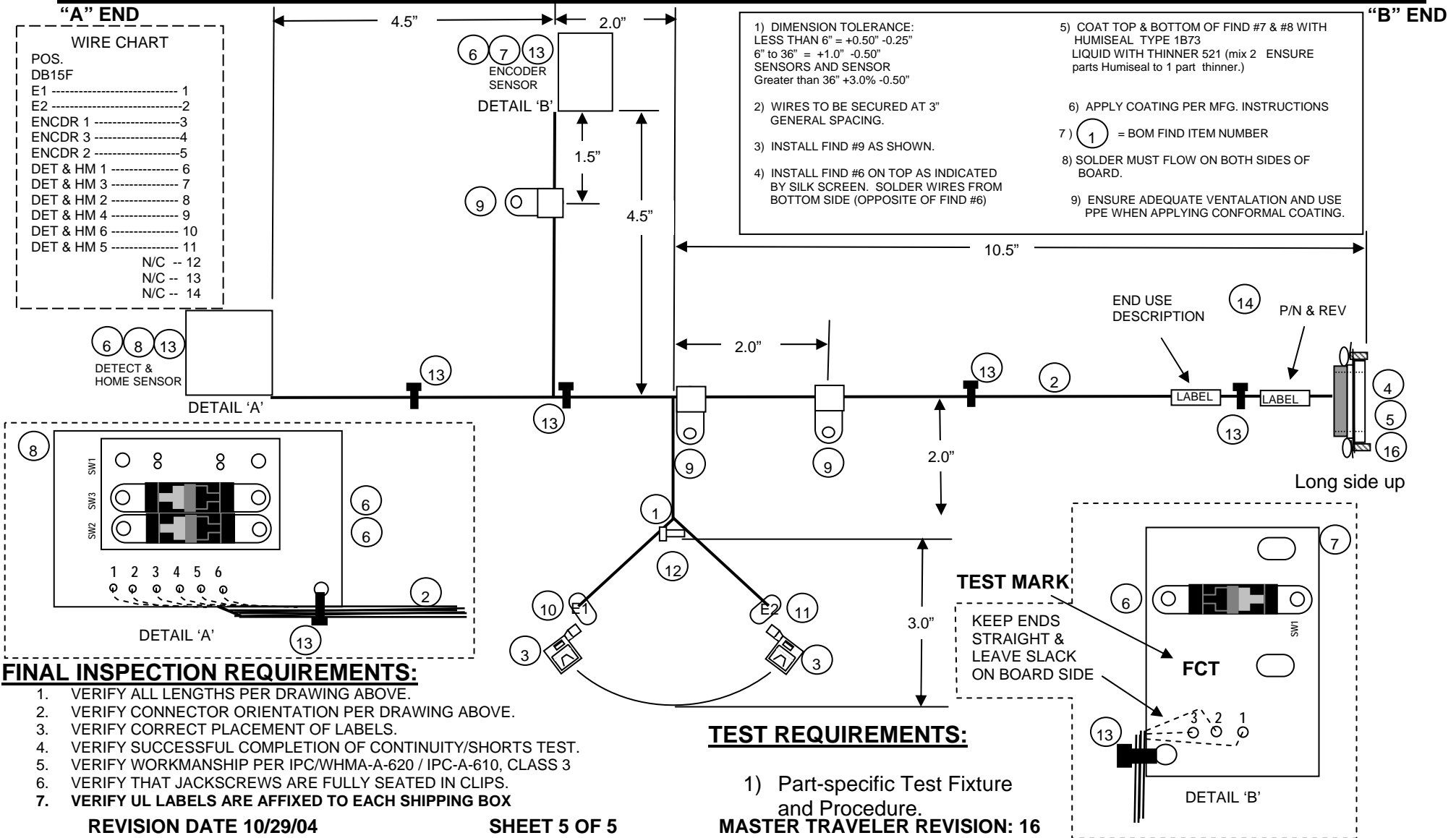
REVISION NUMBER	DESCRIPTION / REASON FOR CHANGE	REQUESTED BY	COMPLETED BY /DATE
06	Added label P11/J5 to BOM, Labeling requirements, steps 18 and 22, and Att. 'A'. Added liquid sealant and thinner to BOM, step 15 and note 5 of Att. 'A'. Added BOM item 19 (UL Labels) & note in step 025 to add UL label to box.	Customer	DDD 11/26/02
07	Modified Assembly label per customer. Added note to step 23 And Final Inspection Requirements concerning jackscrews. Added note to Final Inspection Requirements about proper part number on C of C.	Customer	DDD 12/18/02
08	Corrected att. 'A' to reflect ty-wrap placed between labels on 'B' end of assembly.	PROD. A.N.	RBS 01/07/03
09	Increased Font in step 25. Changed step 7 in Final Inspection Requirements to check for UL labels on Shipping Box. Added note to step 25 to ensure Q.A. checks for UL Labels.	Engineering	DDD 04/22/03
10	Revision Changes 1 through 5 moved to History. Changed Step 13 and added reference to Part-specific Test Fixture and Test Procedure. Added step 24 and renumbered remaining steps. Added test fixture and procedure to Test Requirements in Att. 'A'.	Customer	DDD 05/09/03
011	Emended text Step 13 and Step 24	Production A.N.	DDD 06/03/03
012	Revised PN item#2 BOM. Changed QP to new format	Customer Svc	BGW 09/15/03
013	Changed quantity of BOM item 9 and 13. Changed quantities in steps 19 and 21. Changed Att. 'A' to reflect new Rev. drawing. Updated Q.P. and label to new drawing rev. (2)	Customer	DDD 10/22/03
014	Changed from Rev 1 to Rev 2 Header to per Customer	Customer	DDD 10/30/03
015	Added note to step 7 and 8.	Eng	DDD 12/24/03
016	Added "long side up" to drawing #16.	ENG.	BSD 10/29/04



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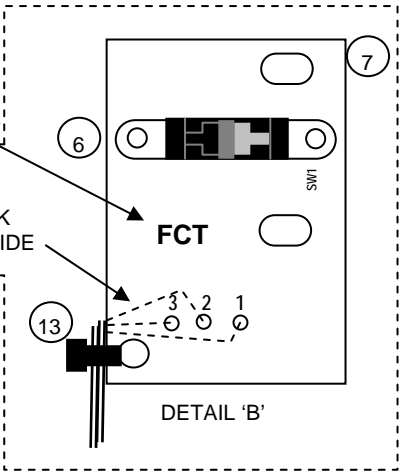
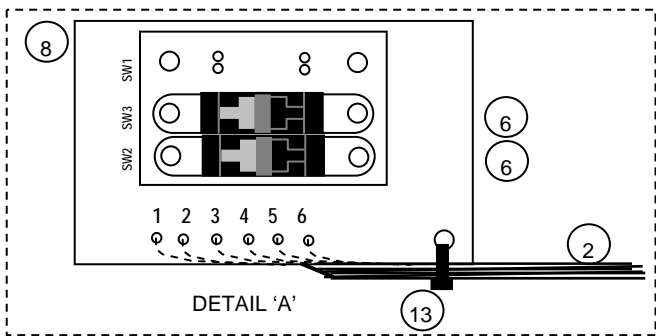


“A” END

WIRE CHART

POS.	
DB15F	
E1	-----1
E2	-----2
ENCDR 1	-----3
ENCDR 3	-----4
ENCDR 2	-----5
DET & HM 1	-----6
DET & HM 3	-----7
DET & HM 2	-----8
DET & HM 4	-----9
DET & HM 6	-----10
DET & HM 5	-----11
	N/C -- 12
	N/C -- 13
	N/C -- 14

- 1) DIMENSION TOLERANCE:
LESS THAN 6" = +0.50" -0.25"
6" to 36" = +1.0" -0.50"
Greater than 36" +3.0% -0.50"
- 2) WIRES TO BE SECURED AT 3" GENERAL SPACING.
- 3) INSTALL FIND #9 AS SHOWN.
- 4) INSTALL FIND #6 ON TOP AS INDICATED BY SILK SCREEN. SOLDER WIRES FROM BOTTOM SIDE (OPPOSITE OF FIND #6)
- 5) COAT TOP & BOTTOM OF FIND #7 & #8 WITH HUMISEAL TYPE 1B73 LIQUID WITH THINNER 521 (mix 2 ENSURE parts Humiseal to 1 part thinner.)
- 6) APPLY COATING PER MFG. INSTRUCTIONS
- 7) ① = BOM FIND ITEM NUMBER
- 8) SOLDER MUST FLOW ON BOTH SIDES OF BOARD.
- 9) ENSURE ADEQUATE VENTILATION AND USE PPE WHEN APPLYING CONFORMAL COATING.



FINAL INSPECTION REQUIREMENTS:

1. VERIFY ALL LENGTHS PER DRAWING ABOVE.
2. VERIFY CONNECTOR ORIENTATION PER DRAWING ABOVE.
3. VERIFY CORRECT PLACEMENT OF LABELS.
4. VERIFY SUCCESSFUL COMPLETION OF CONTINUITY/SHORTS TEST.
5. VERIFY WORKMANSHIP PER IPC/WHMA-A-620 / IPC-A-610, CLASS 3
6. VERIFY THAT JACKSCREWS ARE FULLY SEATED IN CLIPS.
7. VERIFY UL LABELS ARE AFFIXED TO EACH SHIPPING BOX

TEST REQUIREMENTS:

- 1) Part-specific Test Fixture and Procedure.

REVISION DATE 10/29/04

SHEET 5 OF 5

MASTER TRAVELER REVISION: 16