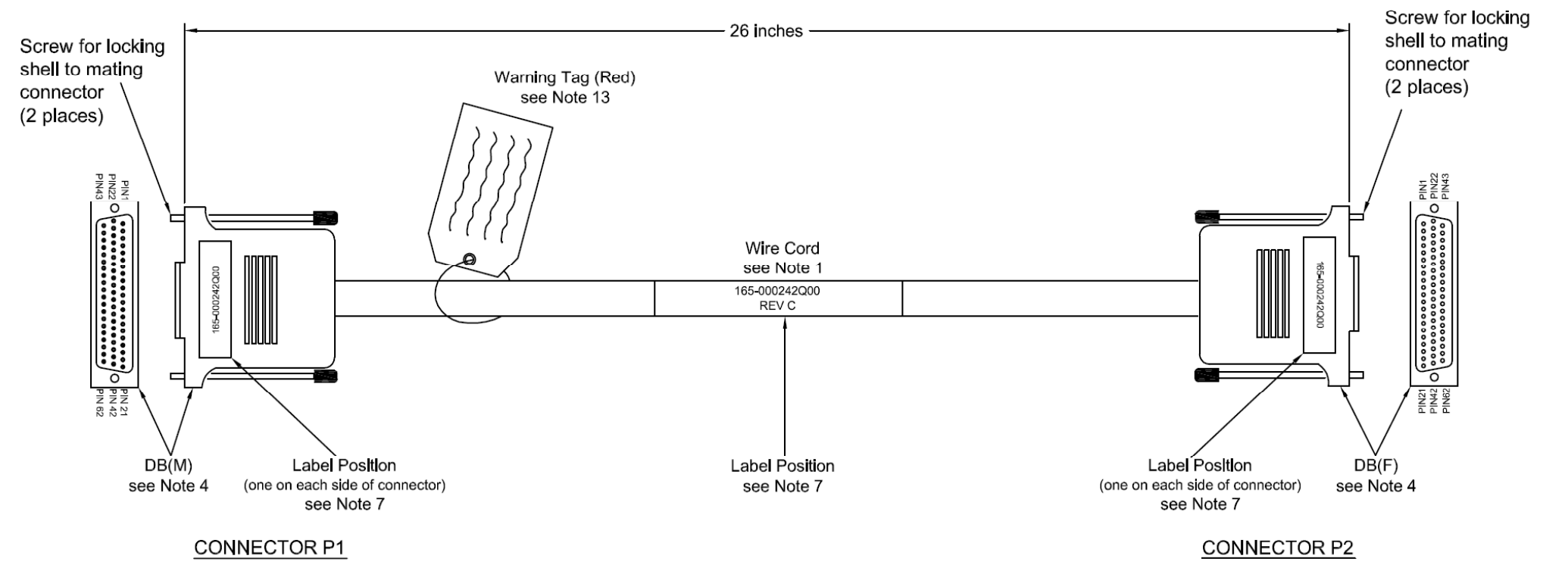


ICONMASTER MKE TO BREAKOUT BOX CABLE

FIGURE 1: CABLE ASSEMBLY



SOURCE CONTROL DRAWING

CORRECT WIRE COLOR CODING, UPDATE LEITCH TO HARRIS, CORRECT PIN PICTURE ON PG 4				M.N.	TO100222	28 APR 10	C
RELEASE TO PRODUCTION				U.S.	TO9526	15 DEC 06	B
INITIAL DESIGN				U.S.	TO6155	09 FEB 08	A
				U.S.	TO7074	21 NOV 05	3
				U.S.			1

PN# CA-B1033-0002

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THIRD ANGLE PROJECTION	DOCUMENT CLASS 8.5.5 REF: LC FILE: .DWG	ENG: J.M DRN: U.S DATE: 21NOV2005	ECO CHANGE DESCRIPTION TITLE ICONMASTER MKE TO BREAKOUT BOX CABLE	DRAWN ECO	SHEET 1 OF 5	DATE 21 NOV 05	REV -M
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ICONMASTER MKE TO BREAKOUT BOX CABLE

NOTES:

1a	Flexible Cord Requirements: - Must use Belden 8178 Paired - Low Capacitance Cable - Manufacturer: UL and CSA approved source - Max temperature: 60C or higher - Cord shall be labelled as shown.
1b	24 AWG Stranded (7x32) TC conductors, DataLene Insulation, twisted pairs Individually Beldfoil shield + overall 100% Beldfoil + TC braid shield (65% coverage), drain wire PVC Jacket.
1c	- Refer to Table II: Cable Specification for more information.
2	Strain Relief: - Electrical tape shall be used to tie all conductors firmly at each end
3	Power and Ground Connector Wires Connector Wire for Gnd, +12, and Spare: - 24 AWG wires GPI, 7 conductor, rated to min of 25V, 80°C - All ground pins should be connected together on each end and to the cable shield. - Shells must be grounded for safety.
4a	62 contact DB(M) and DM(F): - Must use Tyco #301A10159X (qty=1) and Conec #302A10159X (qty=1), or approved equivalent parts - Refer to figure 2 and 4 - The pins and connector walls should not be bent or wrapped
4b	DB housing: - Must NOT be molded - Housing maybe metal or metallized plastic. - Use Amp#747100-1 or Norcomp 979-037-030RIZI from any other manufacturer for DB housing with at least 0.67" cable O/D. - Refer to figure 3
CABLE TESTING	
5a	BEND TEST: - Manual Flex Test to be performed prior to the Continuity Test - Cable shall allow bending in four directions at 20° angle. - Testing Records shall be kept for reference.
5b	CONTINUITY TEST: - Testing for shorts and continuity shall be required. - No shorts between adjacent pins and between connectors. - Continuity verified pin to pin and connector to connector as assigned to Table I. - Testing Records shall be kept for reference.

NOTES:

6	Pin Connections - All pins connections are soldered. All signals excluding ground pins should have a heatshrink boot at the wire/pin junction to prevent shorting.
7	Labels shall be permanent and legible. Labels shall be placed on each DB shell and the cable.
8	Exposed wiring is not allowed.
9	- Cable assembly shall be free of hazardous materials including lead and halogens. - All materials shall be compliant to European legislation 2002 / 95 / EC (RoHS)
10	Workmanship: The assemblies delivered to Leitch shall be free of defects and functional as specified in the design. The manufacturer shall utilize industry best practice for manufacturing these assemblies.
11	CABLE DESIGN: - Design and construction shall ensure cable and signal performance complies with Table I and Table II.
12	COMPLIANCE: - A certificate of compliance is required.
13	WARNING LABEL: The following contents are to be custom printed on red tag #165-000242Q00: "Warning, when mating the cable assembly to the mating connector, ensure that the cable assembly including the shell housing and connector shell housing of the mating connector are aligned. Possible shorting of the signal pin in the connector to the shield may result if not aligned."

Note: All materials shall be compliant to European Legislation 2002/95/EC (RoHS).

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REFR: LC	DRN: U.S.	
FILE: .DWG	DATE: 21NOV2005	

ECO CHANGE DESCRIPTION	DRAWN	ECO	DATE	REV
TITLE	SHEET	NO.		
ICONMASTER MKE TO BREAKOUT BOX CABLE	20	5		

M.N.L U.S.	TO100222	28 APR 10	C
LABEL CHANGE	TO9526	15 DEC 06	B
RELEASE TO PRODUCTION	TO5155	09 FEB 06	A
R.L.OO	U.S.	-	3
INITIAL DESIGN	U.S.	21 NOV 05	1
TO7074			
165-000242Q00			

ICONMASTER MKE TO BREAKOUT BOX CABLE

TABLE I: PIN ASSIGNMENTS

MKA END P1	BOB END P2	COLOUR	PAIR	P/N
1	1	RED	8	8178
2	2	GND **	ALL	8178
3	3	RED	9	8178
4	4	GREEN	9	8178
5	5	RED	10	8178
6	6	BLUE	10	8178
7	7	RED	11	8178
8	8	YELLOW	11	8178
9	9	BLACK	6	8178
10	10	BROWN	6	8178
11	11	RED/WHITE/GREEN		SYS6840
12	12	WHITE		SYS6840
13	13	RED/WHITE		SYS6840
14	14	RED	12	8178
15	15	BROWN	12	8178
16	16	RED	13	8178
17	17	ORANGE	13	8178
18	18	WHITE	14	8178
19	19	GREEN	14	8178
20	20	RED	1	8178
21	21	BLUE	15	8178
22	22	ORANGE	7	8178
23	23	WHITE	8	8178
24	24	GREEN	15	8178
25	25	BLUE/BLACK/WHITE		SYS6840
26	26	BLACK/WHITE		SYS6840
27	27	BLUE/BLACK		SYS6840
28	28	ORANGE/BLACK/WHITE		SYS6840
29	29	GREEN/BLACK/WHITE		SYS6840
30	30	ORANGE/BLACK		SYS6840
31	31	GREEN/BLACK		SYS6840
32	32	RED/BLACK/WHITE		SYS6840
33	33	RED/BLACK		SYS6840
34	34	WHITE/BLACK		SYS6840
35	35	WHITE/BLACK/RED		SYS6840
36	36	RED/BLACK/GREEN		SYS6840
37	37	BLACK/WHITE/RED		SYS6840
38	38	BLUE	4	8178
39	39	WHITE/BLACK/GREEN		SYS6840
40	40	YELLOW	5	8178

TABLE I: PIN ASSIGNMENTS

MKA END P1	BOB END P2	COLOUR	PAIR	P/N
41	41	BLACK	1	8178
42	42	BLACK	4	8178
43	43	BLACK	7	8178
44	44	WHITE	2	8178
45	45	ORANGE/GREEN		SYS6840
46	46	BLACK/WHITE/GREEN		SYS6840
47	47	ORANGE		SYS6840
48	48	BLACK		SYS6840
49	49	BLUE/RED		SYS6840
50	50	WHITE/RED/BLUE		SYS6840
51	51	RED/GREEN		SYS6840
52	52	ORANGE/RED		SYS6840
53	53	YELLOW	16	8178
54	54	GREEN	16	8178
55	55	BLACK	3	8178
56	56	GREEN	3	8178
57	57	BLACK	2	8178
58	58	BLACK	5	8178
59	59	BROWN	17	8178
60	60	GREEN	17	8178
61	61	ORANGE	18	8178
62	62	GREEN	18	8178

** ALL SHIELDS FROM 8178 PAIRS AND FROM MULTICONDUCTOR CABLES ARE CABLE TIED TOGETHER WITH A JUMPER AND SOLDERED - JUMPER TO SHELL AND PIN 2

SPLICE DIAGRAM:

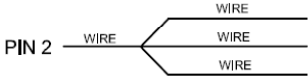


TABLE II: CABLE SPECIFICATION

QTY	MANUFACTURER	PART#	DESCRIPTION
1	BELDEN	8178	Multi Pair Snaked Cable (18 Twisted Pairs with Shield) with outer jacket removed
1	CONEC (or equivalent)	302A10159X	DB62 Socket Subminiature Connector (P2)
1	CONEC (or equivalent)	301A10159X	DB62 Plug Subminiature Connector (P1)
2	AMP (or equivalent)	747100-1	Amp Shell or equivalent with atleast 0.67" cable O/D.
1	Belden (generic multiconductor cable with shield)	8663	Use Black Braided Shield/Foil, dense braiding or solid flexible foil on the outside to reduce EMI. Suggested part is Belden 8663 or equivalent
1	-	-	Remove Belden cable plastic jacket to improve its flexibility.
25	-	24AWG	24 AWG wires for GPI (generic)
1	Suggestions: UL E131769, CSA LR92464, SYCOR #TIA.500-0, 0.5" FR483 from Jennisco or similar		Use black flame retardent expandoflex (braid sleeving) as the cable external shell. Provides a consistent cable appearance.
1	SYCOR	TR64 2607 UL1429TC	Ground jumper SYCOR #A0S2607T-0
		BLACK	

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REFR: LC	DRN: U.S	
FILE: DWG	DATE: 09FEB2004	

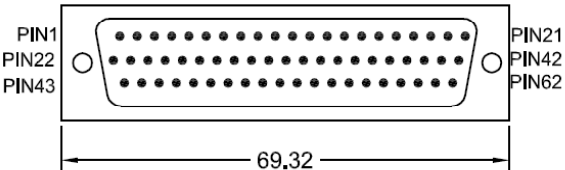
ECO CHANGE DESCRIPTION	TITLE
ICONMASTER MKE TO BREAKOUT BOX CABLE	

SHEET NO.	3 OF 5	DATE	165-000242Q00
ECO		DATE	

CORRECT WIRE COLOR CODING, UPDATE LEITCH TO HARRIS, CORRECT PIN PICTURE ON PG 4	M.N.	TO100222	28 APR 10
RELEASE TO PRODUCTION	U.S	TO8526	15 DEC 08
INITIAL DESIGN	R.LOO	TO5155	09 FEB 06
	U.S	TO7074	21 NOV 05

ICONMASTER MKE TO BREAKOUT BOX CABLE

FIGURE 2: CONEC #301A10159X
(DB62 PLUG Subminiature Connector)
dimensions in mm



- NOTES:
1. Shell Material:
 - Steel; TIN-Plated
 2. Insulator Material:
 - Polyamid, UL 94-V-0
 3. Signal Contacts Material:
 - COPPER BASED ALLOY SOLDER CUP ACCEPTS CABLE AWG 22
 4. Plating Solder Area:
 - TIN over Nickel
 5. = CRITICAL DIMENSION

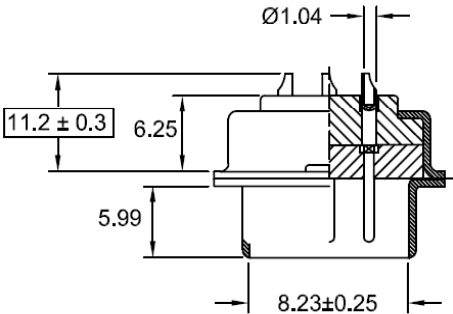
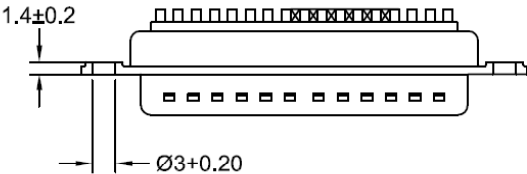
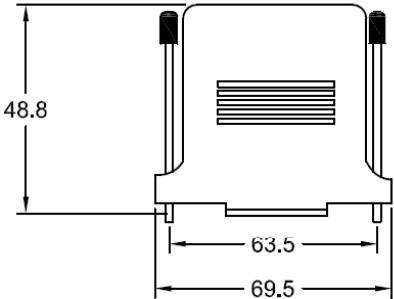


FIGURE 3: DB Housing
(AMP# 747100-1 or equivalent SYCOR# 979-037-030RIZI)
dimensions in mm



Substitute Generic SYHDB-62P

SOURCE CONTROL DRAWING

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REF: LC	DRN: U.S
FILE: DWG	DATE: 21NOV2005

ECO CHANGE DESCRIPTION	TITLE
INITIAL DESIGN	ICONMASTER MKE TO BREAKOUT BOX CABLE

DRAWN	ECO	DATE	REV
TO100222	TO9526	28 APR 10	C
U.S	TO8155	15 DEC 06	B
R.L.OO	U.S	09 FEB 06	A
U.S	U.S	21 NOV 05	3
U.S	U.S		1

SHEET	NO.	DATE	REV
4 of 5	165-000242Q00		-M

CORRECT WIRE COLOR CODING, UPDATE LEITCH TO HARRIS, CORRECT PIN PICTURE ON PG 4

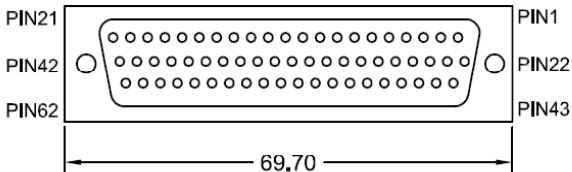
LABEL CHANGE

RELEASE TO PRODUCTION

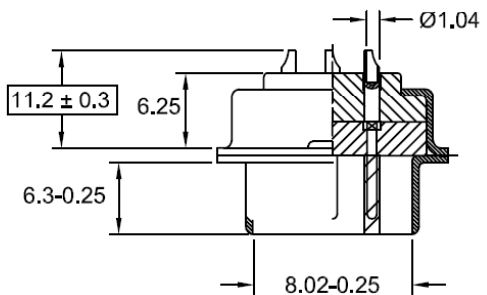
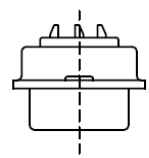
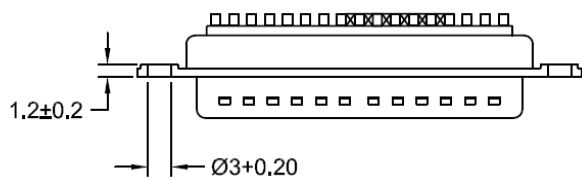
INITIAL DESIGN

ICONMASTER MKE TO BREAKOUT BOX CABLE

FIGURE 4: CONEC #302A10159X
(DB62 SOCKET Subminiature Connector)
dimensions in mm



- NOTES:
- 1. Shell Material:
 - Steel; TIN-Plated
 - 2. Insulator Material:
 - Polyamid, UL 94-V-O
 - 3. Signal Contacts Material:
 - COPPER BASED ALLOY SOLDER CUP ACCEPTS CABLE AWG 22
 - 4. Plating Solder Area:
 - TIN over Nickel
 - 5. = CRITICAL DIMENSION



Substitute Generic SYHDB-62S

SOURCE CONTROL DRAWING

CORRECT WIRE COLOR CODING, U-DATE LEITCH TO HARRIS, CORRECT PIN PICTURE ON PG 4 LABEL CHANGE				M.N.	TO100222	28 APR 10	C
RELEASE TO PRODUCTION				U.S.	TO9526	15 DEC 08	B
INITIAL DESIGN				R.L.OO	TO5155	09 FEB 08	A
				U.S.	-	-	3
				U.S.	TO7074	21 NOV 05	1
ECO CHANGE DESCRIPTION				DRAWN	ECO	DATE	REV
THIRD ANGLE PROJECTION	DOCUMENT CLASS 8,5,5	ENG: J.M.	TITLE		SHEET 5 OF 5	-M	
	REFR: L.C.	DRN: U.S.	ICONMASTER MKE TO BREAKOUT BOX CABLE		165-000242Q00		
	FILE: .DWG	DATE: 21NOV2005					

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