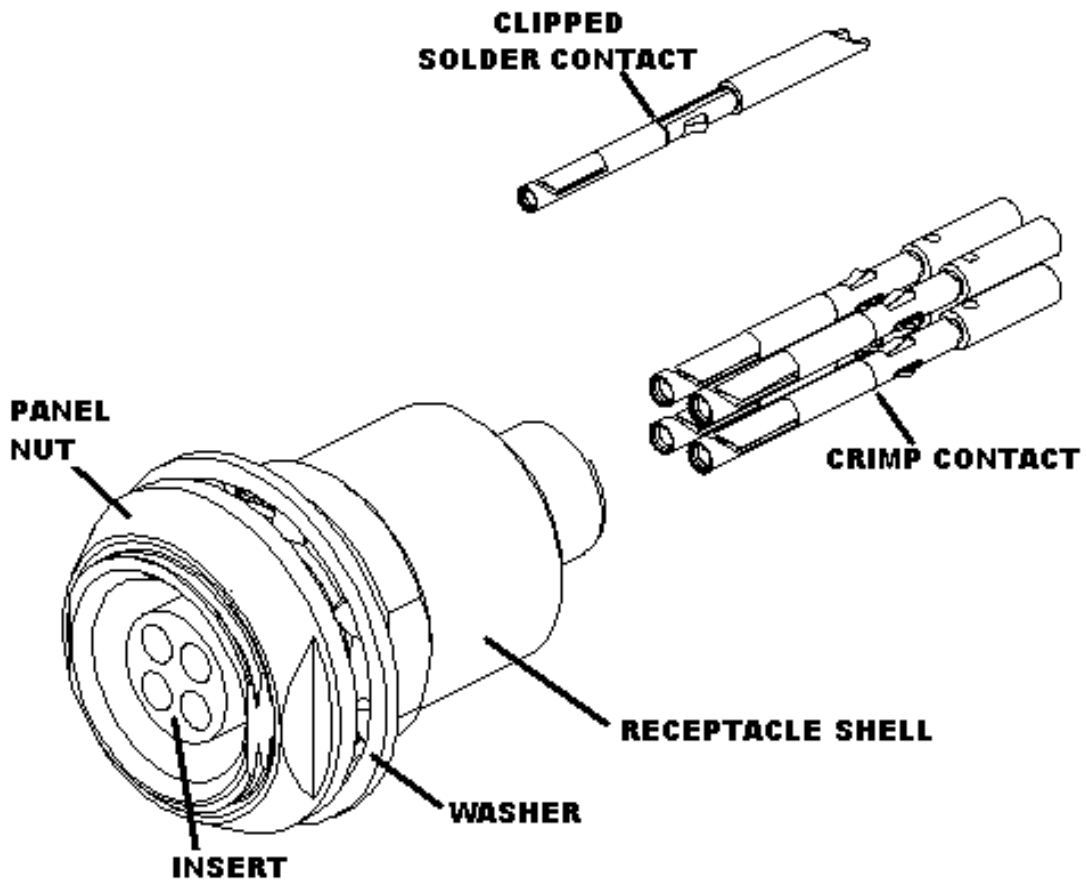
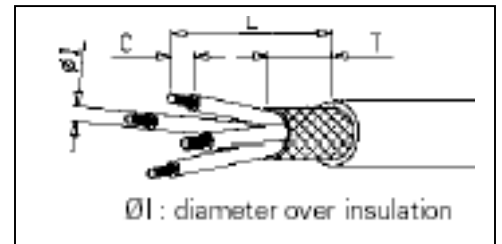


# JBX RECEPTACLE ASSEMBLY INSTRUCTIONS



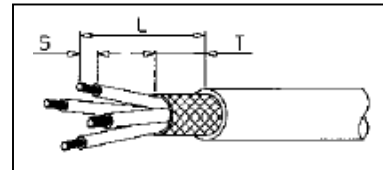
1. Select the proper JBX receptacle and contact size for the specific cable application by using the contact layout chart as depicted in the Push Pull catalog.
2. Strip the cable/wire to the required strip length.



Wiring and assembly instructions  
Cable stripping for connectors with crimp contacts

Shell size	Ø contacts	Ø I	Stripping for FD, SR, PC			Stripping for FC		
			L	C	T	L	C	T
0	0.7	#1.35	15	4	7	19	4	7
		.1.35		5.5			5.5	
0	0.9	#1.6	15	4	7	19	4	7
		.1.6		5.5			5.5	
1	0.7	#1.35	16	4	8	22	4	8
		.1.35		5.5			5.5	
	0.9	#1.6	16	4	8	22	4	8
		.1.6		5.5			5.5	
	1.3	#2.1	16	4	8	22	4	8
		.2.1		5.5			5.5	
2	0.7	#1.35	19	4	9	28	4	9
		.1.35		5.5			5.5	
	0.9	#1.6	19	4	9	28	4	9
		.1.6		5.5			5.5	
	1.3	#2.1	19	4	9	28	4	9
		.2.1		5.5			5.5	
	1.6	#2.6	21	5.5	9	28	5.5	9
		.2.6		7			7	
2.0	#3.2	21	5.5	9	28	5.5	9	
	.3.2		7			7		
3	0.7	#1.35	25	4	10	35	4	10
		.1.35		7			7	
	0.9	#1.6	25	4	10	35	4	10
		.1.6		7			7	
	1.3	#2.1	25	4	10	35	4	10
		.2.1		7			7	
	1.6	#2.6	27	5.5	10	35	5.5	10
		.2.6		8.5			8.5	
	2.0	#3.2	27	5.5	10	35	5.5	10
		.3.2		8.5			8.5	

Wiring and assembly instructions  
Cable stripping for connectors with solder contacts



Shell size	Ø Contacts	Stripping for FD, SR, PC			Stripping for FC		
		L	S	T	L	S	T
00	0.5	9	2	4	/	/	/
0	0.5	11	2	7	16	2	7
	0.7	12	3	7	16	3	7
	0.9	12	3	7	16	3	7
1	0.5	12	2	8	19	2	8
	0.7	13	3	8	19	3	8
	0.9	13	3	8	19	3	8
	1.3	13	3.5	8	19	3.5	8
2	0.7	16	3	9	25	3	9
	0.9	16	3	9	25	3	9
	1.3	16	3.5	9	25	3.5	9
	1.6	18	4	9	25	4	9
	2	18	4	9	25	4	9
3	0.7	20	3	10	30	3	10
	0.9	20	3	10	30	3	10
	1.3	20	3.5	10	30	3.5	10
	1.6	22	4	10	30	4	10
	1.6	22	4	10	30	4	10

3. Depending on application and shell type, the nut and washer may be removed before attaching the wires to the contacts.
4. Attach crimped contacts to wires:
  - a. If using crimped contacts, crimp the contacts onto the ends of the exposed wires using the proper crimping tool and locator set on the correct AWG wire size (*see FIGURE 4.A*). After the contact has been crimped to the wire, check each contact to insure that the contact is securely crimped.

Locator for pin and socket 0.7 - 0.9 mm and 1.3 mm contacts



FIGURE 4.A



Shell size	Ø contacts	AWG	Male contact			Female contact		
			SOURIAU P/N	DANIELS P/	ASTRO P/N	SOURIAU P/N	DANIELS P/N	ASTRO P/N
0	0.7	22 - 24 - 26	JBX 0 OUT LP07	86 - 223	/	JBX 0 OUT LS07	86 - 224	/
	0.9	20 - 22 - 24	JBX 0 OUT LP09	86 - 225	/	JBX 0 OUT LS09	86 - 226	/
1	0.7	22 - 24 - 26	JBX 1 OUT LP07	86 - 196	642 - 001	JBX 1 OUT LS07	86 - 197	642 - 004
	0.9	20 - 22 - 24	JBX 1 OUT LP09	86 - 198	642 - 002	JBX 1 OUT LS09	86 - 199	642 - 005
	1.3	18 - 20 - 22	JBX 1 OUT LP13	86 - 200	642 - 003	JBX 1 OUT LS13	86 - 201	642 - 006
2	0.7	22 - 24 - 26	JBX 2 OUT LP07	86 - 202	642 - 007	JBX 2 OUT LS07	86 - 203	642 - 010
	0.9	20 - 22 - 24	JBX 2 OUT LP09	86 - 204	642 - 008	JBX 2 OUT LS09	86 - 205	642 - 011
	1.3	18 - 20 - 22	JBX 2 OUT LP13	86 - 206	642 - 009	JBX 2 OUT LS13	86 - 207	642 - 012
3	0.7	22 - 24 - 26	JBX 3 OUT LP07	86 - 217	642 - 014	JBX 3 OUT LS07	86 - 214	642 - 017
	0.9	20 - 22 - 24	JBX 3 OUT LP09	86 - 218	642 - 015	JBX 3 OUT LS09	86 - 215	642 - 018
	1.3	18 - 20 - 22	JBX 3 OUT LP13	86 - 219	642 - 016	JBX 3 OUT LS13	86 - 216	642 - 019

Turret with locator for pin and socket 1.6 mm and 2 mm contacts

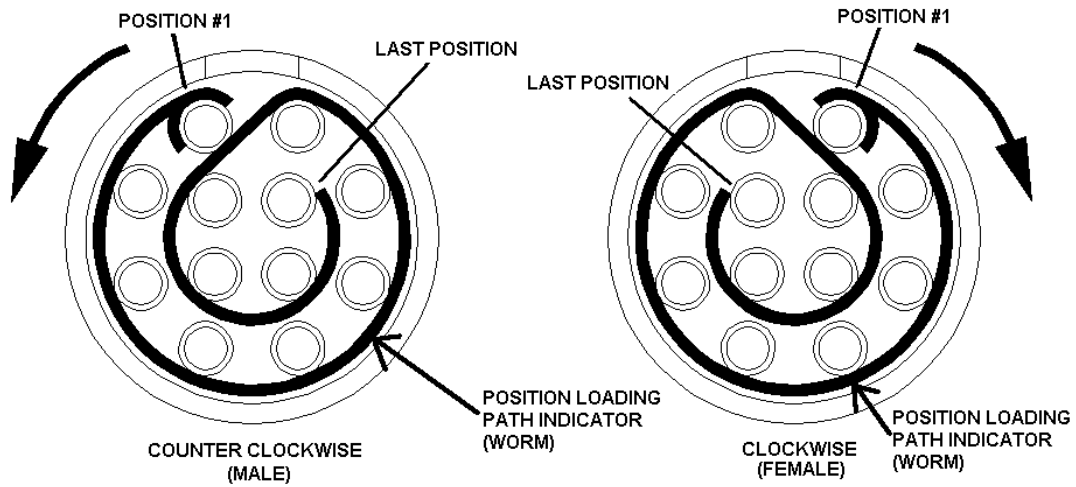


Shell size	Ø contacts	AWG	Male and female contacts		
			SOURIAU P/N	DANIELS P/N	ASTRO P/N
2	1.6	14 - 16 - 18	JBX 2 OUT LT16	TH 564	650 - 030
	2	12 - 14 - 16	JBX 2 OUT LT20	TH 565	650 - 031
3	1.6	14 - 16 - 18	JBX 3 OUT LT16	TH 566	650 - 038
	2	12 - 14 - 16	JBX 3 OUT LT20	TH 567	650 - 035

## Crimping Tool

Specifications MIL-C-22520 / 7.01			
	Contacts 0.7 mm – 0.9 mm and 1.3mm	MIL P/N – SOURIAU P/N	Supplier P/N
		MIL-22520/7-01	Daniels: MH860
Specifications MIL-C-22520 / 1.01			
	Contacts 1.6 mm and 2 mm	MIL P/N – SOURIAU P/N	Supplier P/N
		MIL-22520/1-01	Daniels: AF8 Buchanan: 615708

- b. If using clipped solder contacts, prep each wire with flux and then tin dip each exposed wire end. Next pre-load a piece of heat shrink onto the wire (Individual heat shrink tubes are optional). Solder each wire to the solder cup end of the contact. To avoid shorts, make sure that no solder comes in contact with any other contact or wire on the connector. After the contact has been soldered to the wire, check each contact to insure that the contact is securely soldered to the wire. Slide the pre-loaded heat shrink over the solder joint and shrink into place. Do not over-heat the solder joint area as it can cause the solder to re-flow or it could burn the wire insulation.
5. If inserting terminated contacts:
- a. Starting with the interface end of the contact, insert each contact into the backside of the insulator that has the position loading path indicator (worm) on it. Start with the end of the position loading path indicator (worm) that has the half circle on it (Position #1). Then follow the position loading path indicator (worm) around the insulator. You will go counter clockwise if using a male contact and clockwise if using a female contact (see diagram below for the position loading path indicator (worm) layout). If the connector has center contacts, it is sometimes easier to start at the end of the position loading path indicator (worm) (last position) and work backwards. This is up to the assembler and the process used to insert the contacts. Make sure not to bend the contact when inserting it into the insulator. It is extremely important that the contact is seated in the insulator for the connector to function properly. The contact should click/snap into place when seated. Check each contact for proper seating.



## 6. Removal of contacts:

- a. Using the proper extraction tool (See FIGURE 6.A), insert the tool over the front of the contact and push contact out. Failure to use the proper extraction tool can result in damage to the contact.

### Manual extraction tools



The extraction tool is the same for both male and female contacts.

FIGURE 6.A

Shell size	Ø Contacts	SOURIAU Part number	ASTRO Part number
0	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
1	0.7	JBX OUT DC 07	ATJP2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
2	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115
3	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115

## **7. Potting of backend of receptacle with clipped contacts**

Clipped contacts are designed to float in the connector so that they self align when mated. It is sometimes necessary to pot the backend of the connector so that the contacts are sealed off from the environment. When this application is needed, it is recommended that the assembler engage a mating connector/alignment tool to the assembly being potted. Once the mating connector/alignment tool is engaged, it must be left engaged until the potting compound has hardened. This will insure that the true position requirements are met. If the application is low volume, a mating connector can be used. If the application is for high volume, it is recommended that an alignment tool be purchased from the supplier.

### **Trouble shooting**

<b>Problem:</b>	<b>Cause:</b>	<b>Correction:</b>
Contact will not seat in connector, contact backing out.	Wrong wire or insulation size, wrong strip length, poor crimping, broken clips, damaged insulator, removed contact without proper removal tool, bad crimp.	Use correct wire, adjust strip length, strip and re-crimp with new contact, replace insulator, using correct crimp tool, replace contact.
Bent solder contact	Bent in handling, bent in soldering operation, connector assembled incorrectly.	Re-align contact, replace insert with contacts.
Contact stubbing after mating.	Bent contact and damaged contact, connector-assembled incorrectly.	Re-align contact, replace insert with contacts. If using clipped contacts and receptacle is potted, a mating connector must be applied to the connector that is being potted. This insures that the contacts will be properly aligned.
Electrical failure.	Improper crimping, wrong wire strip length, wire loading incorrect location, poor solder joint.	Remove contact with correct removal tool, reinstall new contact, and verify strip length.