



Bringing Your Innovations To Life



***Rocket***<sup>®</sup>  
Macro D Connectors

# Complete Electronic Solutions

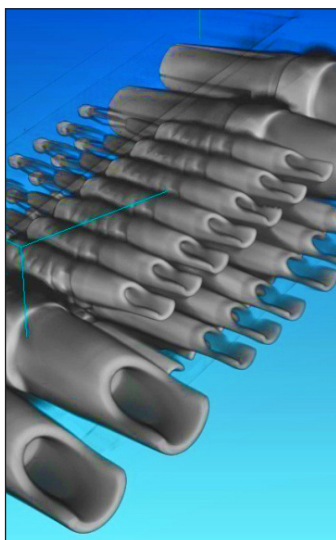


AirBorn is an employee owned company whose core business is engineering & manufacturing specialized connectors & electronic components for OEMs worldwide. We serve customers across many industries including: Commercial Air, Industrial, Medical, Military/Defense, & Space Exploration.

Companies today are looking for more than a supplier, they're looking for a strategic partner to collaborate & grow with. AirBorn products are trusted to perform in extreme conditions, where mission-critical reliability is vital to success. Customers trust AirBorn products, and have for over 60 years.

## AirBorn Engineering = Problem Solved®

AirBorn's engineering group specializes in new product design and development for OEMs across the globe. Our team of 50+ degreed engineers are the most innovative and committed to solving our customer's challenges, but that's only the beginning of where we can help! Leverage our design and manufacturing expertise throughout the entire product development process. From conceptual design, prototyping, pilot-runs through to mass production, our teams work efficiently to cut down your program's time to market.



### Solution Engineering

AirBorn has a dedicated team of experienced and degreed solution engineers on staff to help solve your most pressing electronic challenges.



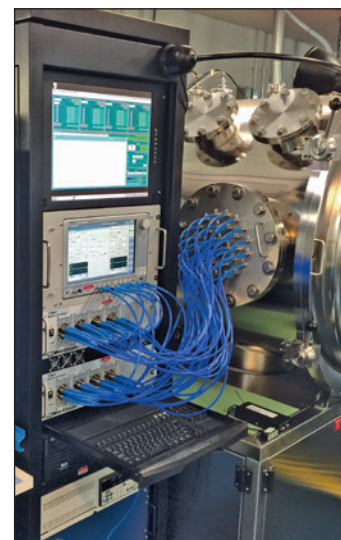
### Cable vs. Flex Assemblies

We manufacture cable and flex assemblies and can provide an impartial recommendation of which solution is best for your distinct application.



### Signal Integrity Expertise

Whether a new design retrofit, or a field issue, let us help you design and end-to-end interconnect solution to support your high-speed signal integrity design.

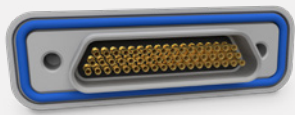


### Lab & Test Services

We'll test against the highest standards imaginable to ensure your products stand up to the rigors of space, military, commercial air, and industrial applications.



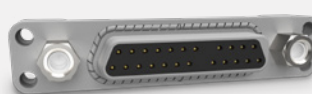
## Connectors



Micro D  
M Series



Hybrid-Keyed Micro D  
microQUAD



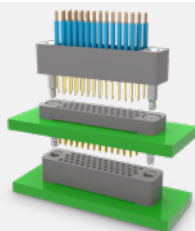
High-Speed Micro D  
microSI



Nano D  
N Series



Rectangular 25Gbps  
verSI



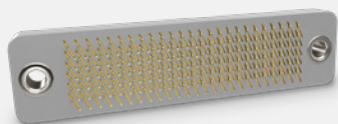
Stackable  
RC & RCII Series



Rectangular  
R Series



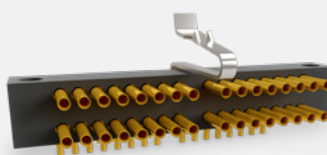
Rectangular  
W Series



Z Axis Interposer  
Z Series



Circular  
Series 360

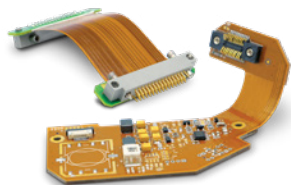


Strip Connector  
AirStrip



Macro D  
RockKet

## Assemblies



Flexible Circuit Assemblies



Cable Assemblies



FUZE Assemblies

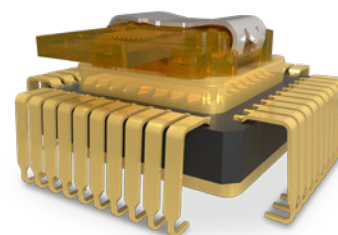


Active Optical Assemblies

## Embedded Systems

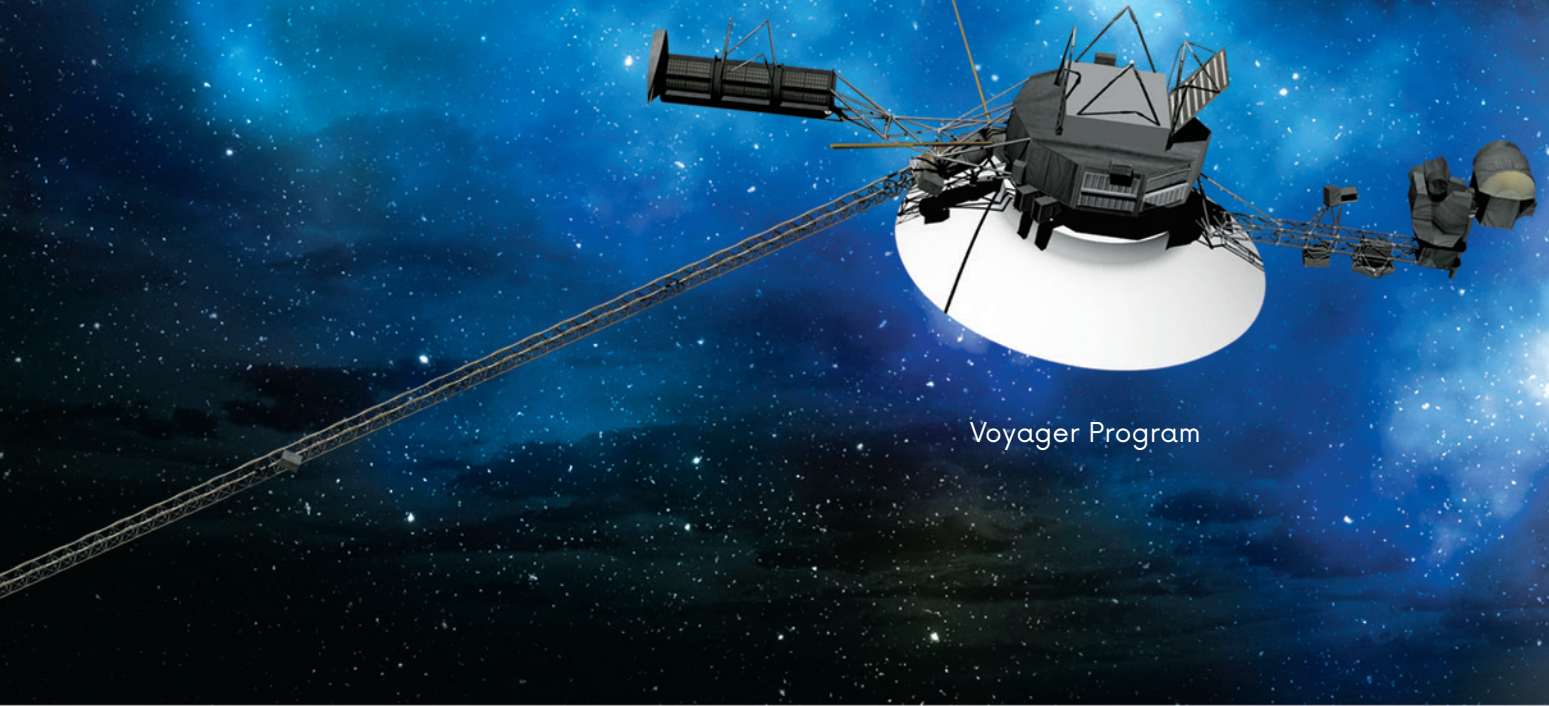


Rugged Power Systems



Photonics/Optoelectronics

# AirBorn In Action



Voyager Program

## AirBorn Solutions Are "In-Action" Inside Many Important & Famous Applications

AirBorn Connectors, Inc. was founded in 1958 to manufacture electronic connectors for aviation applications, hence our company name. By 1960, our 12 employees engaged with customers including Motorola Inc., Texas Instruments (now Raytheon), Lockheed Aircraft, Boeing and Burroughs. In the time since our founding, we've managed to be a part of many famous and important projects in human history. The Voyager I & II program, launched in 1977 and still traveling interstellar space today, is emblematic of how customers view AirBorn parts: rugged, reliable and long lasting.

We're proud to be a part of America's, and our allies', vast military and defense initiatives too. AirBorn parts were designed into the Apache & Blackhawk Helicopters, F-16 & F-35 Jets, Abram's & Bradley Tanks and Ohio-Class Attack Subs just to name a few. Our solutions are also part of Patriot, Javelin, Hellfire, Tomahawk and THAAD missile programs. We excel at providing unfailing quality to mission-critical applications.

While military/defense and aviation applications are our specialty, we by no means stop there. AirBorn parts are an integral part of commercial aircraft, MRI machines, defibrillators as well as pain management systems. From deep sea to deep space, AirBorn connectors are ready for any challenge.





Mars Rovers



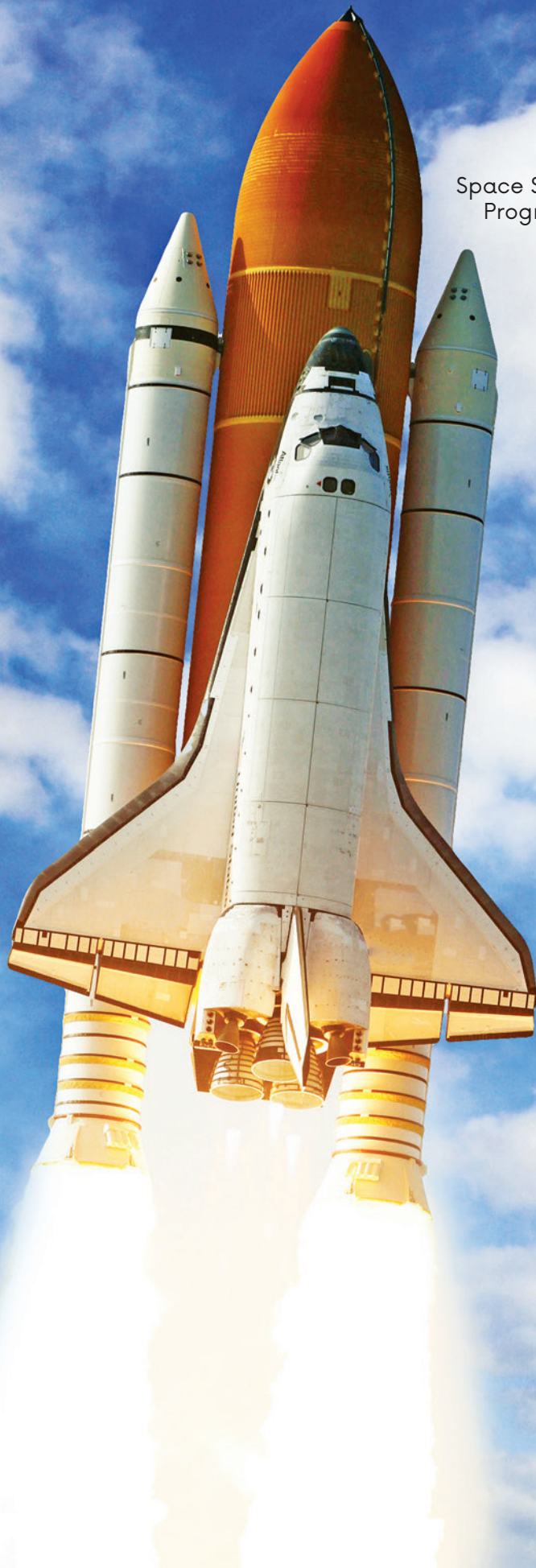
Commercial Airliners



Military Communications & Rifle Scopes



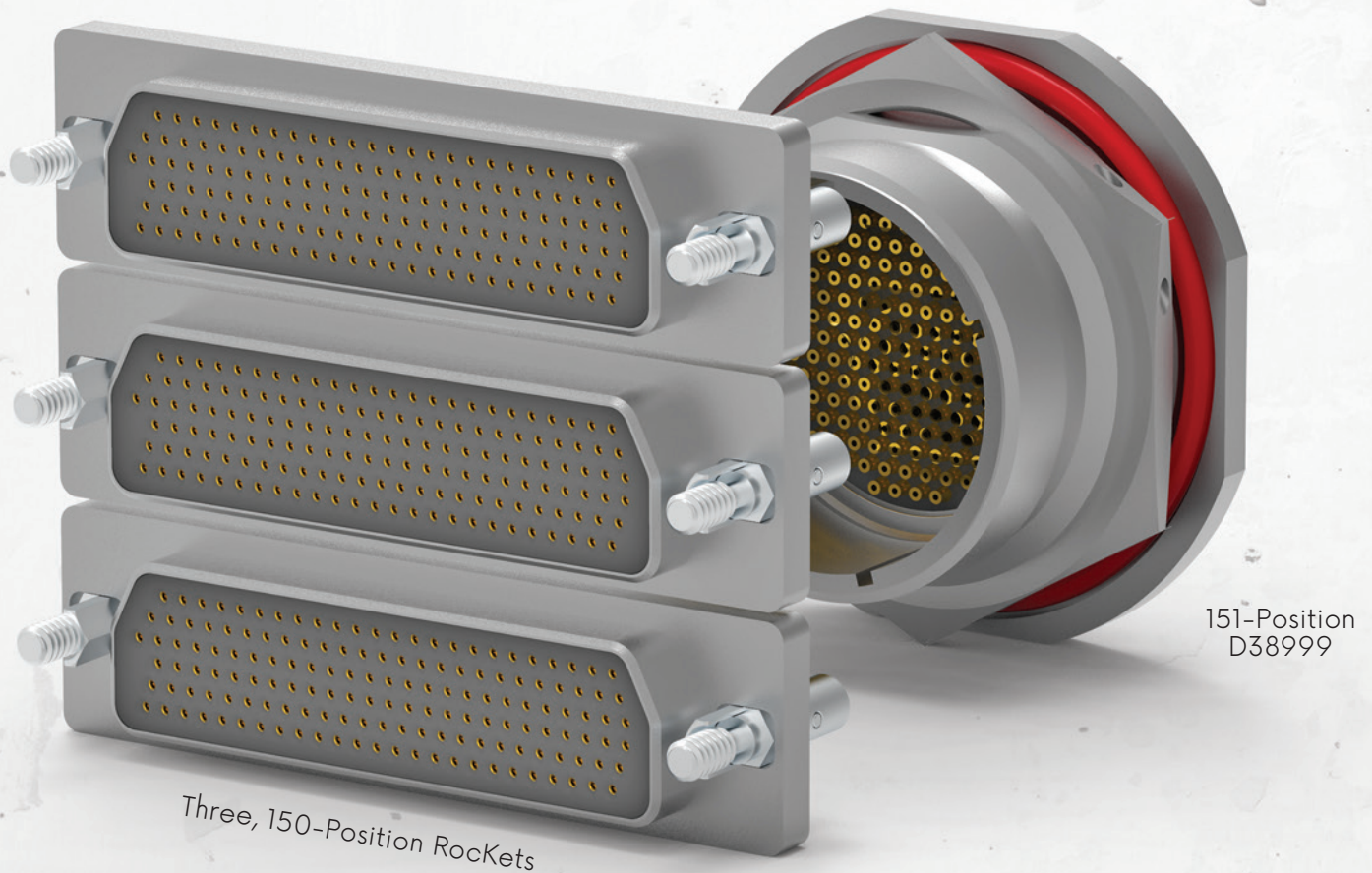
Pain Management Systems



Space Shuttle Program



# Rocket Series Overview



## Rocket Macro D — Obsoleting D38999

AirBorn's Rocket Macro D connectors can take your product to the next level with a robust design withstands all the rigours on Earth and in space. With its rugged form, three 150-position Rockets can utilize the same space as one, 151-position D38999 circular connector.

That will save you space, weight (especially crucial in space exploration applications), and overall cost. Utilizing AirBorn's Rocket Macro Ds is your first step towards obsoleting 38999s forever.

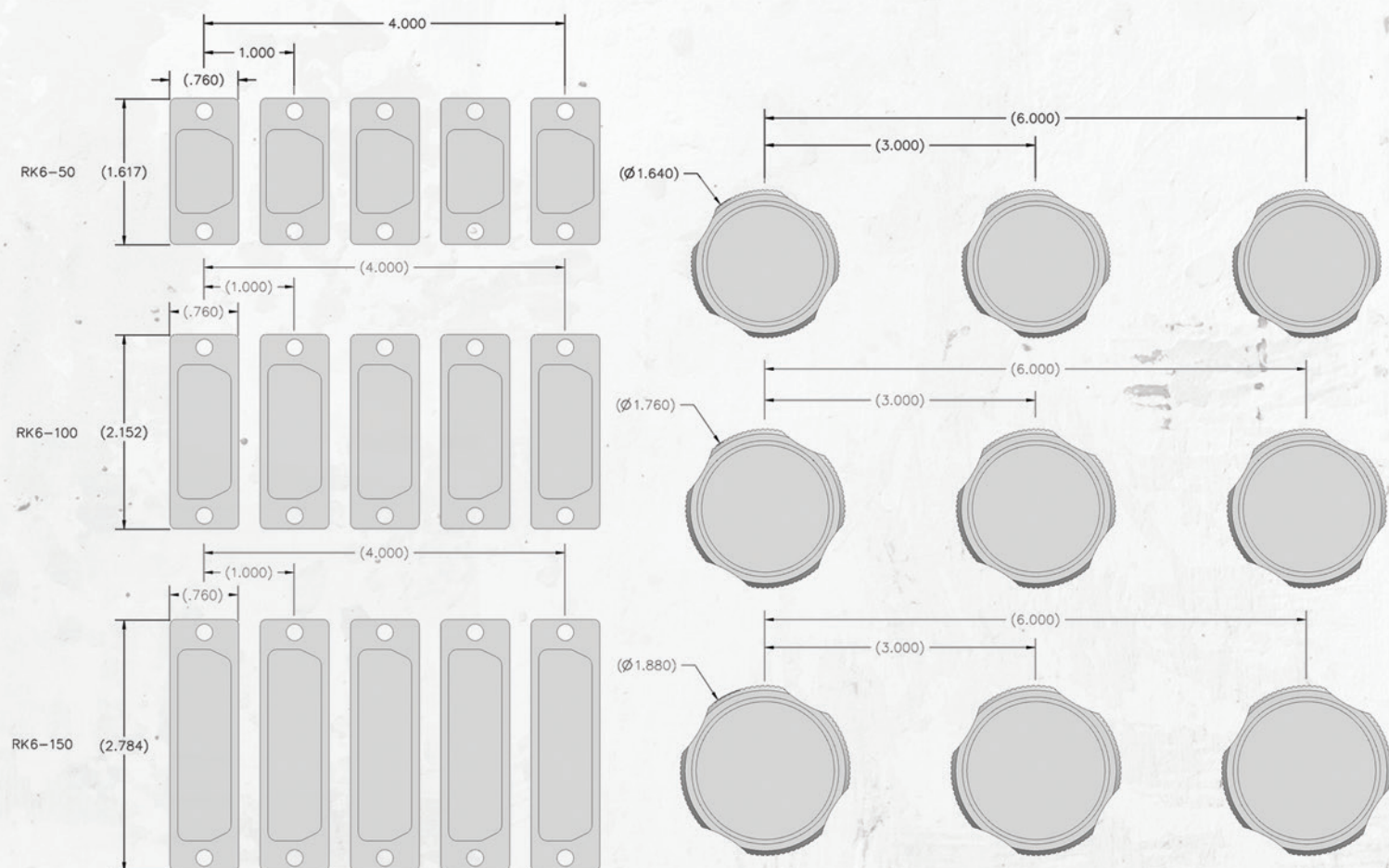
### Key Features & Benefits:

- 2-, 3-, 4-, & 6-row models available
- 8, 25, 50, 74, 100, & 150 pin/socket positions
- Fit 3, 150 position Rockets in the space of a single, 151 position D38999 — shell size 23
- Rockets are crimp removable & customer terminated
- Install and remove wiring multiple times
- Panel-mount capability
- Rocket delivers both signal and power
- A full complement of backshells available including straight, Straight, 45°, 90°, and Lace-Wiring



# Rocket<sup>®</sup>

## D38999s



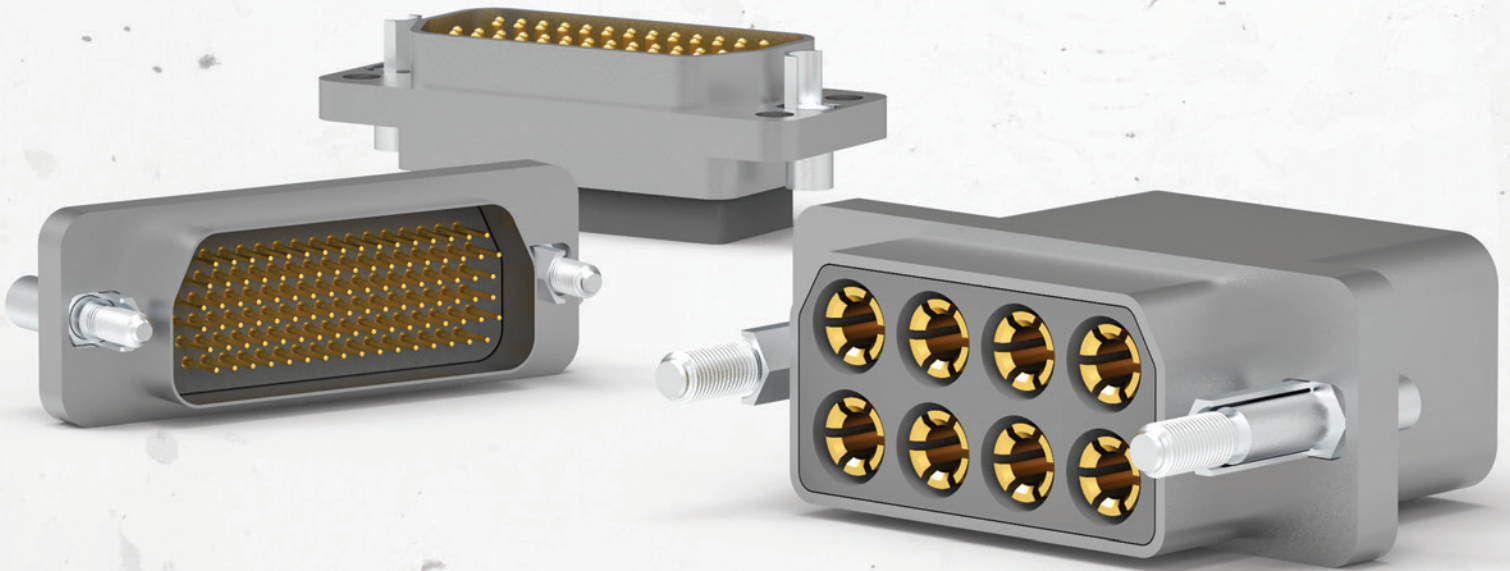
## Rectangular Means Cost, Weight, and Footprint Savings — Especially in Space Applications

When establishing your desired pin count, comparing circular to rectangular connectors often reveals a staggering amount of savings in terms of footprint, weight, — and ultimately cost. Efficiencies discovered in the beginning stages always equate to more economical designs on the back end.

Often, circular connectors are required for gloved-hand installations, as used by astronauts in space applications. When that requirement is lifted however, AirBorn's rectangular Rocket connectors become the preferred solution for space, weight, and cost savings. In the example above, we are able to fit 750, 24 awg. I/O contacts in the same space as 450 I/O contacts, when housed in a circular D38999 body.



# Critical to Success Applications



## Ruggedness & Reliability: Keys To Surviving Harsh Environments

When it comes to durability in the face of unforgiving conditions, they don't come any tougher than AirBorn's RockKet Series connectors. Whether its enduring the extreme shock and vibration of a rocket launch, the unrelenting repetition of factory robotics, or the intense temperature fluctuations inherent with oil and gas drilling, RockKet connectors are designed to withstand all of that and much more.

Looking for a rugged and reliable replacement for a D38999 circular, look no further than AirBorn's RockKet family of connectors. With the quality that AirBorn's customers can count on and space-flight heritage, RockKet Series connectors set the standard for Macro D reliability.

### Applications

- Satellite Systems
- Launch Systems
- Panel I/O
- High-Speed Rail
- Mass Transit
- Commercial Aircraft
- Heavy Equipment
- Robotic Systems
- Oil & Gas



# Rockets Are Designed Into:



Rockets



Rail



Rigs

And More...



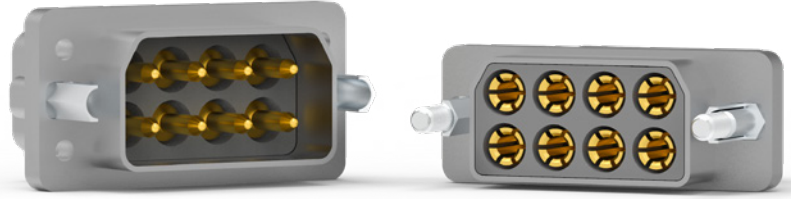
Robotics



Radar

## 2-Row, Power I/O Connector

RK2 is an 8 awg., crimp-removable contact system available in an 8 position body. Available options include panel mount or I/O, keying hardware, and a full line of backshells.



### Crimp-Removable Plug

Sample Part Number — RK232-008-801-5901

RK	2	3	2	008	80	1			015
<b>SERIES</b> 8 Awg power connector	<b>ROWS</b> 2 – 2-Row	<b>STYLE</b> 3 – Plug, straight	<b>BODY MATERIAL</b> 2 – Polyphenylene sulfide (PPS) with aluminum shell electroless nickel shell plating	<b>SIZE</b> 008 – 8 contacts	<b>TERMINATION</b> 80 – Socket, straight, crimp removable, wire barrel 8 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 59 – Turning jackscrews	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Crimp-Removable, Panel-Mount Receptacle

Sample Part Number — RK222-008-901-2901

RK	2	2	2	008	90	1			015
<b>SERIES</b> 8 Awg power connector	<b>ROWS</b> 2 – 2-Row	<b>STYLE</b> 2 – Receptacle, straight, panel mount	<b>BODY MATERIAL</b> 2 – Polyphenylene sulfide (PPS) with aluminum shell electroless nickel shell plating	<b>SIZE</b> 008 – 8 contacts	<b>TERMINATION</b> 90 – Pin, straight, crimp removable, wire barrel 8 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 29 – Fixed jacksockets	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Notes:

1. Crimp tool - AirBorn part number: CDG14569
2. Crimp positioner - AirBorn part number: CDG14570 (Pin & socket contacts)
3. Removal tool - AirBorn part number: CDG5418
4. Crimp instructions - see page 28

\* Full compliment of crimp removable contacts packaged with connectors



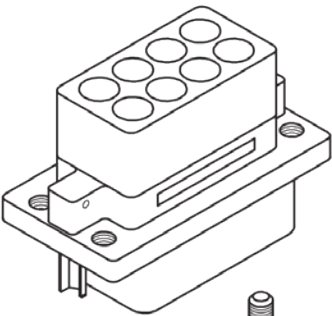
I/O Cable



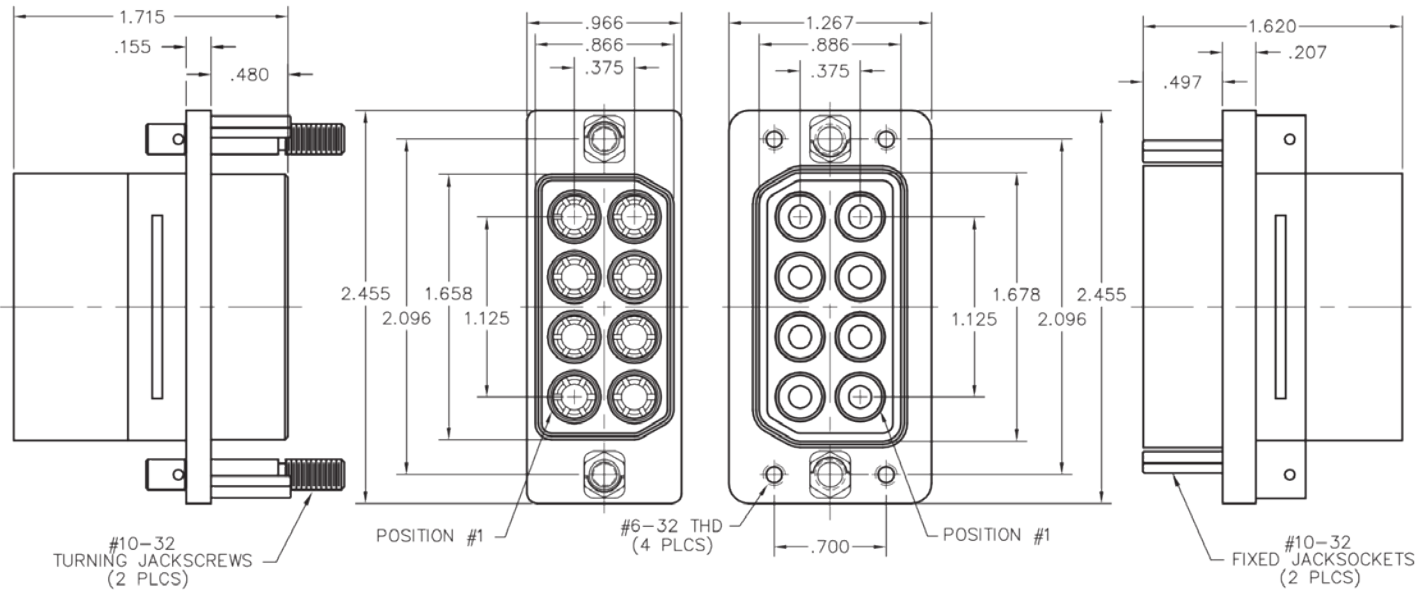
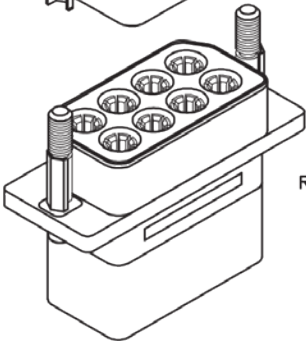
Crimp Removable



RK222-008-901-2901



RK232-008-801-5901



PLUG

RECEPTACLE

CONTACT ARRANGEMENT MATING FACE VIEW							
PLUG				RECEPTACLE			
8	7	6	5	5	6	7	8
4	3	2	1	1	2	3	4

## 2-Row, Power I/O Connector

RK2 is an 8 awg., crimp-removable contact system available in an 8 position body. Available options include panel mount or I/O, keying hardware, and a full line of backshells.



### Crimp-Removable, Panel-Mount Plug

Sample Part Number — RK212-008-801-2901

RK	2	1	2	008	80	1			015
<b>SERIES</b> 8 Awg power connector	<b>ROWS</b> 2 – 2-Row	<b>STYLE</b> 1 – Plug, straight, panel mount	<b>BODY MATERIAL</b> 2 – Polyphenylene sulfide (PPS) with aluminum shell electroless nickel shell plating	<b>SIZE</b> 008 – 8 contacts	<b>TERMINATION</b> 80 – Socket, straight, crimp removable, wire barrel 8 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 29 – Turning jacksockets	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Crimp-Removable Receptacle

Sample Part Number — RK242-008-901-5901

RK	2	4	2	008	90	1			015
<b>SERIES</b> 8 Awg power connector	<b>ROWS</b> 2 – 2-Row	<b>STYLE</b> 4 – Receptacle, straight	<b>BODY MATERIAL</b> 2 – Polyphenylene sulfide (PPS) with aluminum shell electroless nickel shell plating	<b>SIZE</b> 008 – 8 contacts	<b>TERMINATION</b> 90 – Pin, straight, crimp removable, wire barrel 8 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 59 – Turning jackscrews	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Notes:

1. Crimp tool - AirBorn part number: CDG14569
2. Crimp positioner - AirBorn part number: CDG14570 (Pin & socket contacts)
3. Removal tool - AirBorn part number: CDG5418
4. Crimp instructions - see page 28

\* Full compliment of crimp removable contacts packaged with connectors

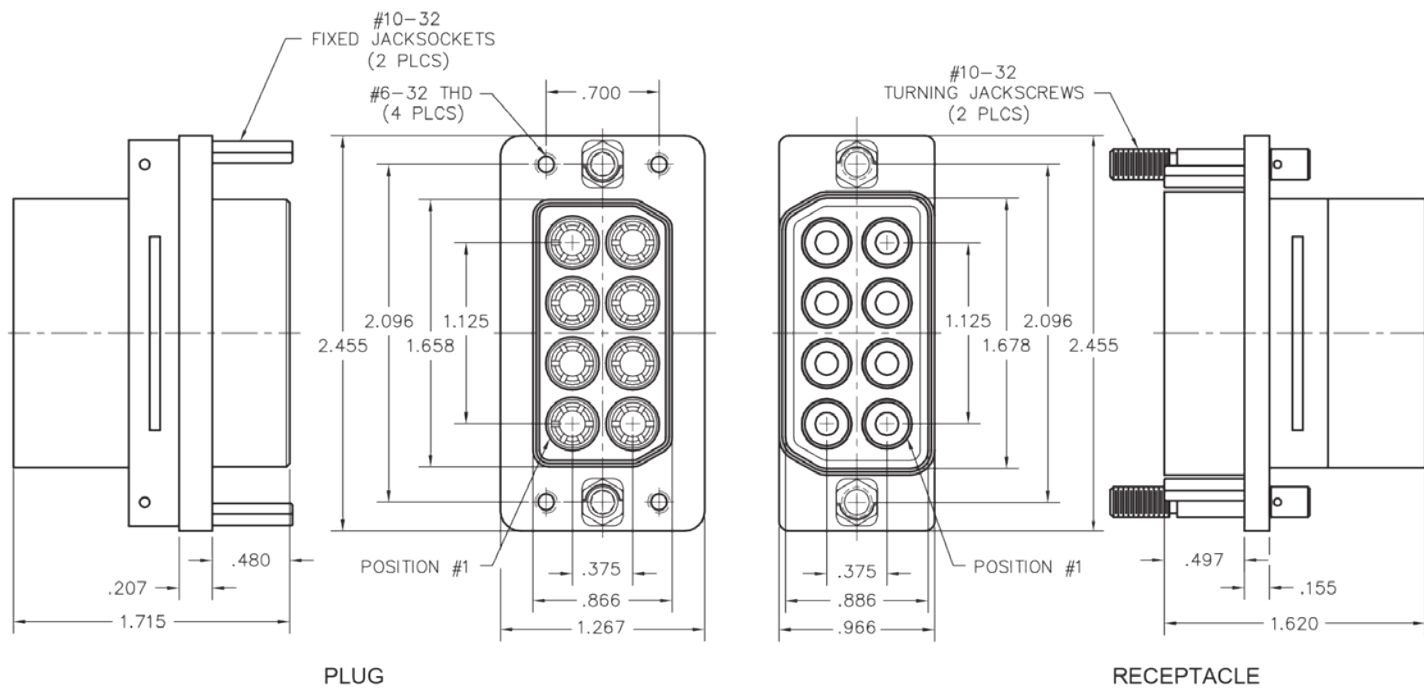
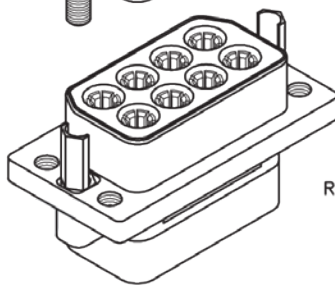
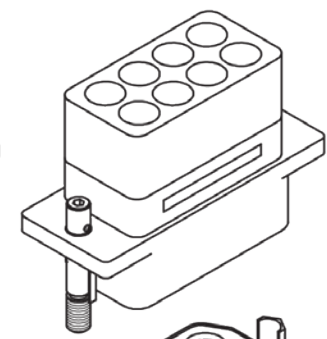


I/O Cable



Crimp Removable





CONTACT ARRANGEMENT MATING FACE VIEW							
PLUG				RECEPTACLE			

## 3-Row, Power I/O Connector

RK3 is a 16 awg., crimp-removable contact system available in 25 position body. Available options include panel-mount or I/O, keying hardware, and a full line of backshells.



### Crimp-Removable Plug

Sample Part Number — RK332-025-601-5901

RK	3	3	2	025	60	1			
<b>SERIES</b> 16 Awg power connector	<b>ROWS</b> 3 – 3-Row	<b>STYLE</b> 3 – Plug, straight	<b>BODY MATERIAL</b> 2 – Polyphenylene sulfide (PPS) with aluminum shell electroless nickel shell plating	<b>SIZE</b> 025 – 25 contacts	<b>TERMINATION</b> 60 – Socket, straight, crimp removable, wire barrel 16 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 59 – Turning jackscrews	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Crimp-Removable, Panel-Mount Receptacle

Sample Part Number — RK322-025-701-2901

RK	3	2	2	025	70	1			
<b>SERIES</b> 16 Awg power connector	<b>ROWS</b> 3 – 3-Row	<b>STYLE</b> 2 – Receptacle, straight, panel mount	<b>BODY MATERIAL</b> 2 – Polyphenylene sulfide (PPS) with aluminum shell electroless nickel shell plating	<b>SIZE</b> 025 – 25 contacts	<b>TERMINATION</b> 70 – Pin, straight, crimp removable, wire barrel 16 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 29 – None 29 – Fixed jacksockets	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Notes:

1. Crimp tool - AirBorn part number: CDG14569
2. Crimp positioner - AirBorn part number: CDG14570 (Pin & socket contacts)
3. Removal tool - AirBorn part number: CDG4493
4. Crimp instructions - see page 32

\* Full compliment of crimp removable contacts packaged with connectors



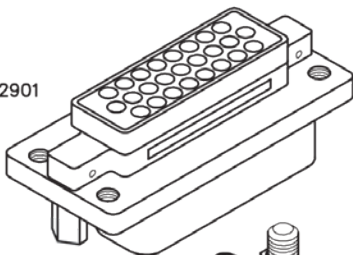
I/O Cable



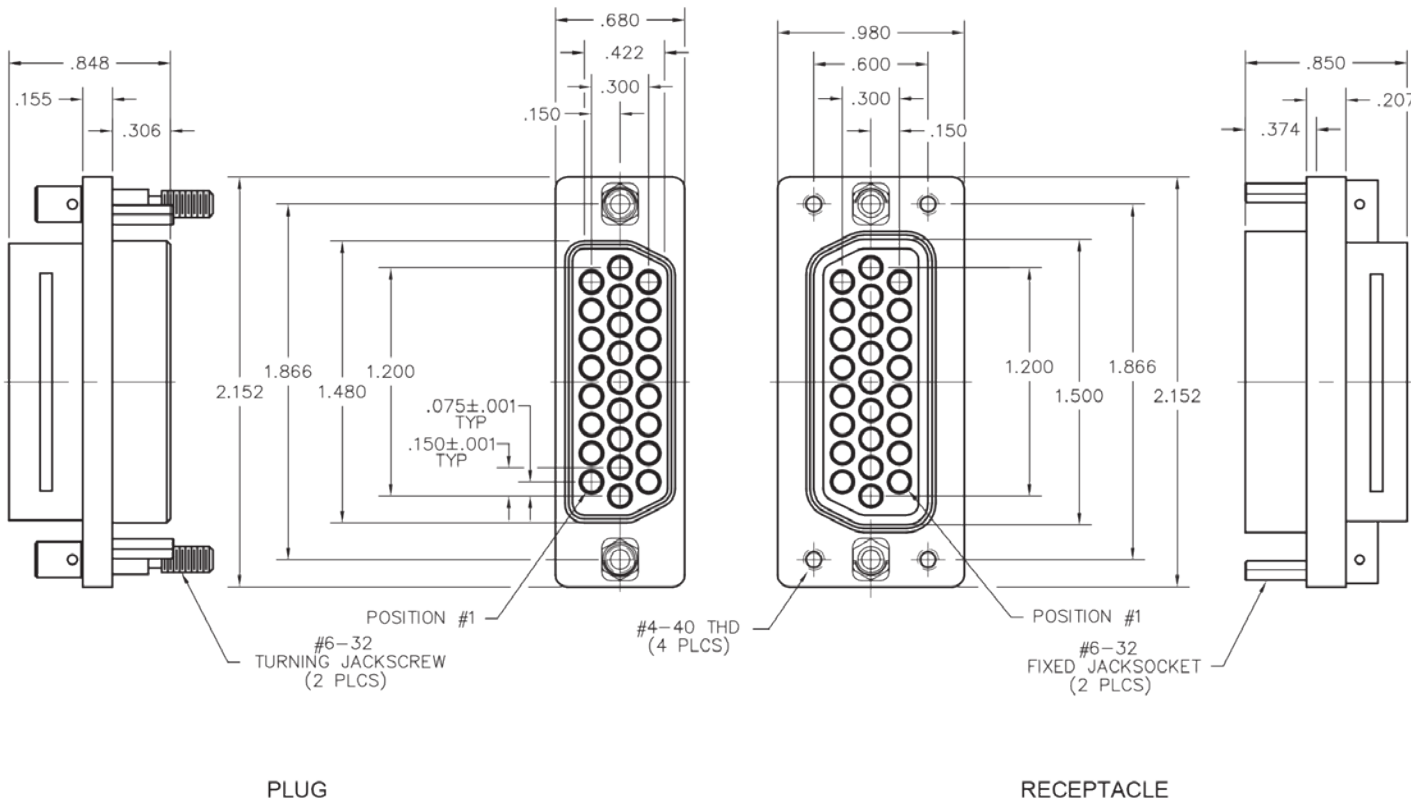
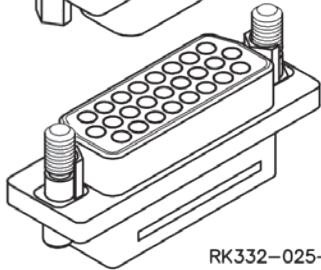
Crimp Removable



RK322-025-701-2901



RK332-025-601-5901



CONTACT ARRANGEMENT MATING FACE VIEW	
PLUG	RECEPTACLE
<div>25 24 23 22 21 20 19 18</div> <div>17 16 15 14 13 12 11 10 9</div> <div>8 7 6 5 4 3 2 1</div>	<div>18 19 20 21 22 23 24 25</div> <div>9 10 11 12 13 14 15 16 17</div> <div>1 2 3 4 5 6 7 8</div>

## 3-Row, Power I/O Connector

RK3 is a 16 awg., crimp-removable contact system available in 25 position body. Available options include panel-mount or I/O, keying hardware, and a full line of backshells.



### Crimp-Removable, Panel-Mount Plug

Sample Part Number — RK312-025-601-2901

RK	3	1	2	025	60	1			
<b>SERIES</b> 16 Awg power connector	<b>ROWS</b> 3 – 3-Row	<b>STYLE</b> 1 – Plug, straight, panel mount	<b>BODY MATERIAL</b> 2 – Polyphenylene sulfide (PPS) with aluminum shell electroless nickel shell plating	<b>SIZE</b> 025 – 25 contacts	<b>TERMINATION</b> 60 – Socket, straight, crimp removable, wire barrel 16 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 29 – Fixed jacksockets	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Crimp-Removable Receptacle

Sample Part Number — RK342-025-701-5901

RK	3	4	2	025	70	1			
<b>SERIES</b> 16 Awg Power Connector	<b>ROWS</b> 3 – 3-Row	<b>STYLE</b> 4 – Receptacle, straight	<b>BODY MATERIAL</b> 2 – Polyphenylene sulfide (PPS) with aluminum shell electroless nickel shell plating	<b>SIZE</b> 025 – 25 contacts	<b>TERMINATION</b> 70 – Pin, straight, crimp removable, wire barrel 16 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 59 – Turning jackscrews	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Notes:

1. Crimp tool - AirBorn part number: CDG14569
2. Crimp positioner - AirBorn part number: CDG14570 (Pin & socket contacts)
3. Removal tool - AirBorn part number: CDG4493
4. Crimp instructions - see page 32

\* Full compliment of crimp removable contacts packaged with connectors



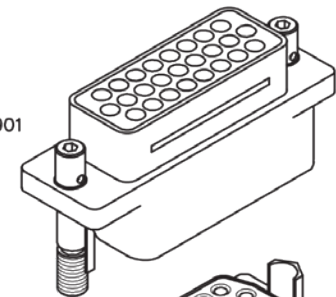
I/O Cable



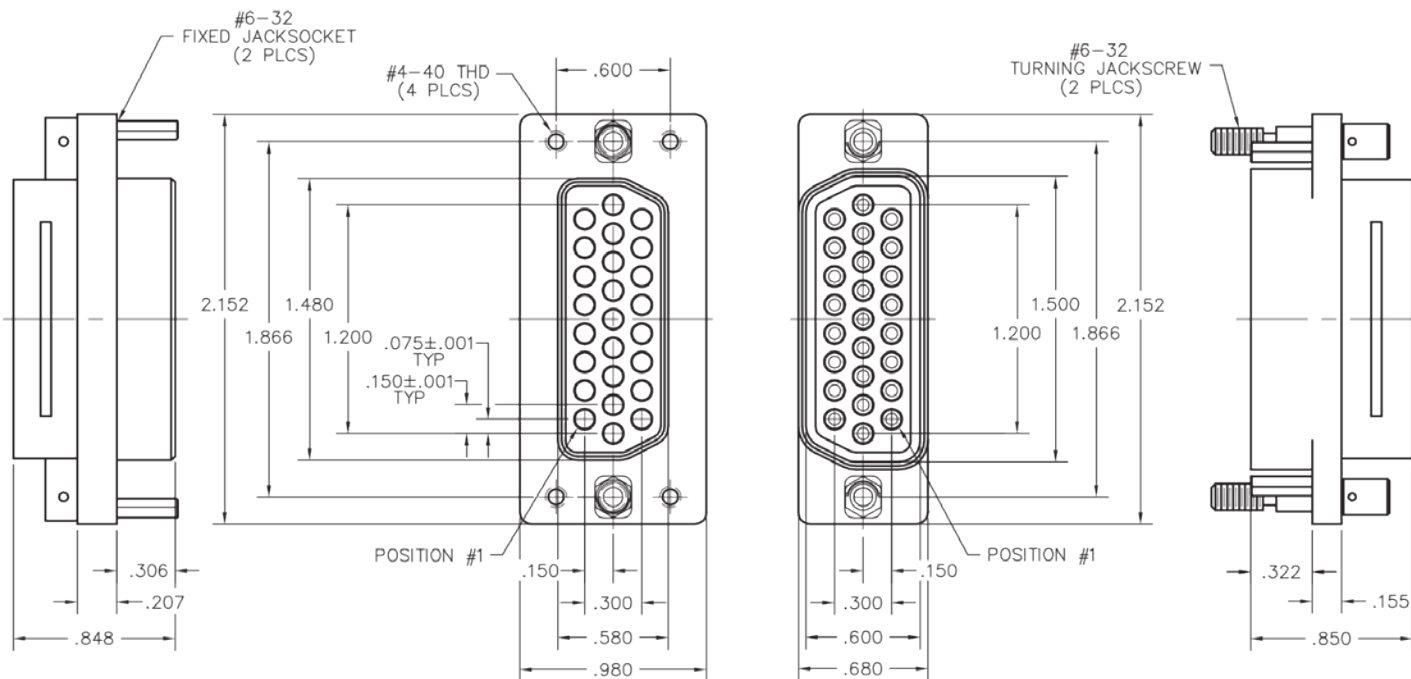
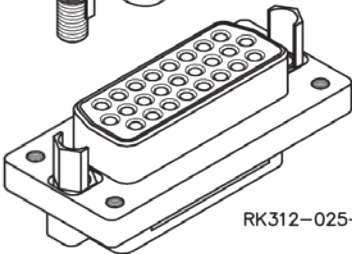
Crimp Removable



RK342-025-701-5901



RK312-025-601-2901



CONTACT ARRANGEMENT MATING FACE VIEW	
PLUG	RECEPTACLE
<div>25 24 23 22 21 20 19 18</div> <div>17 16 15 14 13 12 11 10 9</div> <div>8 7 6 5 4 3 2 1</div>	<div>18 19 20 21 22 23 24 25</div> <div>9 10 11 12 13 14 15 16 17</div> <div>1 2 3 4 5 6 7 8</div>

## 4-Row, Power I/O Connector

RK4 is a 20 awg., crimp-removable contact system available in 50 or 74 position body. Available options include panel-mount or I/O, keeping hardware, and a full line of backshells.



### Crimp-Removable Plug

Sample Part Number — RK432-050-201-5901

RK	4	3			20	1			
<b>SERIES</b> 20 Awg power connector	<b>ROWS</b> 4 – 4-Row	<b>STYLE</b> 3 – Plug, straight	<b>BODY MATERIAL</b> Polyphenylene sulfide (PPS) with aluminum shell 1 – No shell plating; bare aluminum 2 – Electroless nickel shell plating 3 – Cadmium shell plating	<b>SIZE</b> 050 – 50 contacts 074 – 74 contacts	<b>PLATING</b> 1 – Gold	<b>TERMINATION</b> 20 – Socket, straight, crimp removable, wire barrel 20-22 awg*	<b>HARDWARE</b> 00 – None 59 – Turning jackscrews	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Crimp-Removable, Panel-Mount Receptacle

Sample Part Number — RK422-050-301-2901

RK	4	2			30	1			
<b>SERIES</b> 20 Awg power connector	<b>ROWS</b> 4 – 4-Row	<b>STYLE</b> 2 – Receptacle, straight, panel mount	<b>BODY MATERIAL</b> Polyphenylene sulfide (PPS) with aluminum shell 1 – No shell plating; bare aluminum 2 – Electroless nickel shell plating 3 – Cadmium shell plating	<b>SIZE</b> 050 – 50 contacts 074 – 74 contacts	<b>PLATING</b> 1 – Gold	<b>TERMINATION</b> 30 – Pin, straight, crimp removable, wire barrel 20-22 awg*	<b>HARDWARE</b> 00 – None 29 – Fixed jackscrews	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Notes:

1. Crimp tool - AirBorn part number: CDG4601, Mil Spec number MIL-C-22520/2-01
2. Crimp positioner - AirBorn part number: CDG7936 (Pin contacts)  
CDG7935 (Socket contacts)
3. Removal tool - AirBorn part number: CDG7932
4. Crimp instructions - see page 35

\* Full compliment of crimp removable contacts packaged with connectors



I/O Cable

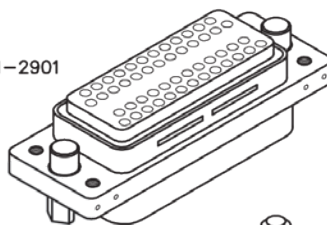


Crimp Removable

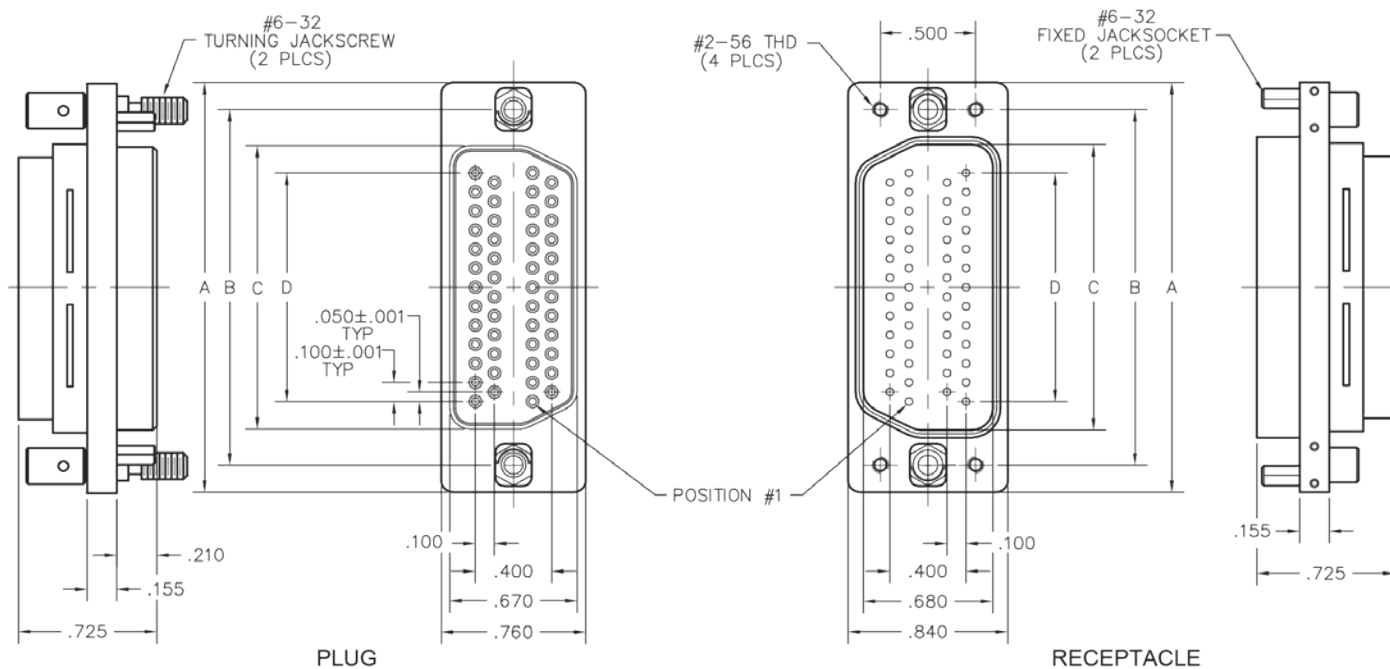
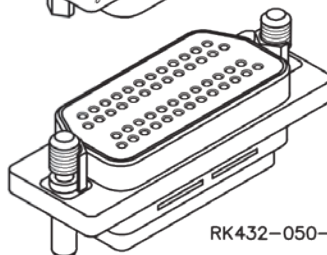


## Dimensional Data (In Inches)

RK422-050-301-2901



RK432-050-201-5901



CONTACT ARRANGEMENT MATING FACE VIEW	
PLUG	RECEPTACLE
<p>50 POSITION</p>	<p>50 POSITION</p>
<p>74 POSITION</p>	<p>74 POSITION</p>

SIZE	A	B	C		D
			PLUG	RCPT	
50	2.152	1.866	1.488	1.500	1.200
74	2.784	2.500	2.122	2.134	1.875

## 4-Row, Power I/O Connector

RK4 is a 20 awg., crimp-removable contact system available in 50 or 74 position body. Available options include panel-mount or I/O, keying hardware, and a full line of backshells.



### Crimp-Removable, Panel-Mount Plug

Sample Part Number — RK412-050-201-2901

RK	4	1			20	1			
<b>SERIES</b> 20 Awg power connector	<b>ROWS</b> 4 – 4-Row	<b>STYLE</b> 1 – Plug, straight, panel mount	<b>BODY MATERIAL</b> Polyphenylene sulfide (PPS) with aluminum shell 1 – No shell plating; bare aluminum 2 – Electroless nickel shell plating 3 – Cadmium shell plating	<b>SIZE</b> 050 – 50 contacts 074 – 74 contacts	<b>TERMINATION</b> 20 – Socket, straight, crimp removable, wire barrel 20-22 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 29 – None 29 – Fixed jacksockets	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Crimp-Removable Receptacle

Sample Part Number — RK442-050-301-5901

RK	4	4			30	1			
<b>SERIES</b> 20 Awg power Connector	<b>ROWS</b> 4 – 4-Row	<b>STYLE</b> 4 – Receptacle, straight	<b>BODY MATERIAL</b> Polyphenylene sulfide (PPS) with aluminum shell 1 – No shell plating; bare aluminum 2 – Electroless nickel shell plating 3 – Cadmium shell plating	<b>SIZE</b> 050 – 50 contacts 074 – 74 contacts	<b>TERMINATION</b> 30 – Pin, straight, crimp removable, wire barrel 20-22 awg*	<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 59 – Turning jackscrews	<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Notes:

1. Crimp tool - AirBorn part number: CDG4601, Mil Spec number MIL-C-22520/2-01
2. Crimp positioner - AirBorn part number: CDG7936 (Pin contacts)  
CDG7935 (Socket contacts)
3. Removal tool - AirBorn part number: CDG7932
4. Crimp instructions - see page 35

\* Full compliment of crimp removable contacts packaged with connectors



I/O Cable

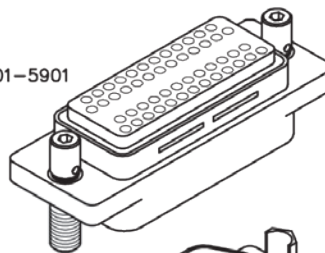


Crimp Removable

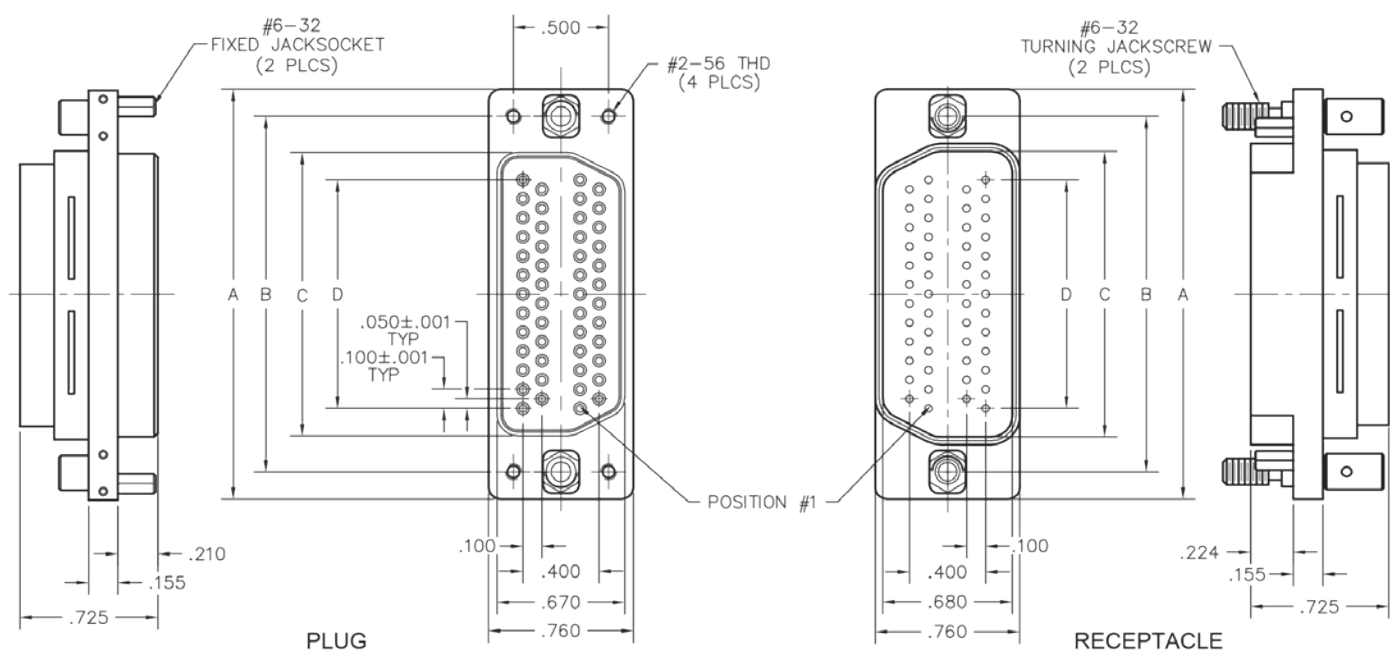
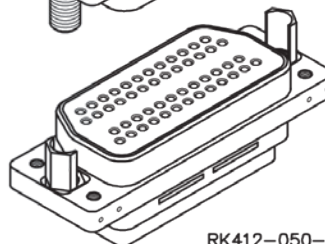


## Dimensional Data (In Inches)

RK442-050-301-5901



RK412-050-201-2901

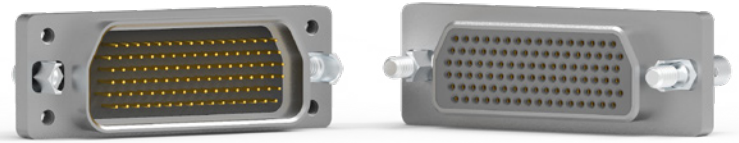


CONTACT ARRANGEMENT MATING FACE VIEW	
PLUG	RECEPTACLE
<p>50 POSITION</p>	<p>50 POSITION</p>
<p>74 POSITION</p>	<p>74 POSITION</p>

DIMENSIONS					
SIZE	A	B	C		D
			PLUG	RCPT	
50	2.152	1.866	1.488	1.500	1.200
74	2.784	2.500	2.122	2.134	1.875

## 6-Row, Signal I/O Connector

RK6 is a 24 awg., crimp-removable contact system available in 50, 100 or 150 position body. Available options include panel-mount or I/O, keying hardware, and a full line of backshells.



### Crimp-Removable Plug

Sample Part Number — RK632-100-581-5901

RK	6	3				1			
<b>SERIES</b> 24 Awg power connector	<b>ROWS</b> 6 – 6-Row	<b>STYLE</b> 3 – Plug, straight	<b>BODY MATERIAL</b> Polyphenylene sulfide (PPS) with aluminum shell 1 – No shell plating; bare aluminum 2 – Electroless nickel shell plating 3 – Cadmium shell plating	<b>SIZE</b> 050 – 50 contacts 100 – 100 contacts 150 – 150 contacts		<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 59 – Turning jackscrews		<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details
					<b>TERMINATION</b> 58 – Socket, straight, crimp removable, wire barrel 24-26 awg* 59 – Socket, straight, crimp removable, wire barrel 28-30 awg*		<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed		

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Crimp-Removable, Panel-Mount Receptacle

Sample Part Number — RK622-100-181-2901

RK	6	2				1			
<b>SERIES</b> 24 Awg power connector	<b>ROWS</b> 6 – 6-Row	<b>STYLE</b> 2 – Receptacle, straight, panel mount	<b>BODY MATERIAL</b> Polyphenylene sulfide (PPS) with aluminum shell 1 – No shell plating; bare aluminum 2 – Electroless nickel shell plating 3 – Cadmium shell plating	<b>SIZE</b> 050 – 50 contacts 100 – 100 contacts 150 – 150 contacts		<b>PLATING</b> 1 – Gold	<b>HARDWARE</b> 00 – None 29 – Turning jackscrews		<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details
					<b>TERMINATION</b> 18 – Pin, straight, crimp removable, wire barrel 24-26 awg* 19 – Pin, straight, crimp removable, wire barrel 28-30 awg*		<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed		

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Notes:

1. Crimp tool - AirBorn part number: CDG4601, Mil Spec number MIL-C-22520/2-01
2. Crimp positioner - AirBorn part number: CDG5598 (Pin contacts)  
CDG4602 (Socket contacts)
3. Removal tool - AirBorn part number: CDG8161
4. Crimp instructions - see page 38

\* Full compliment of crimp removable contacts packaged with connectors



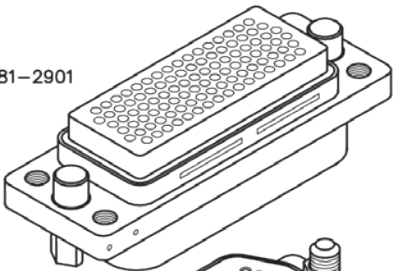
I/O Cable



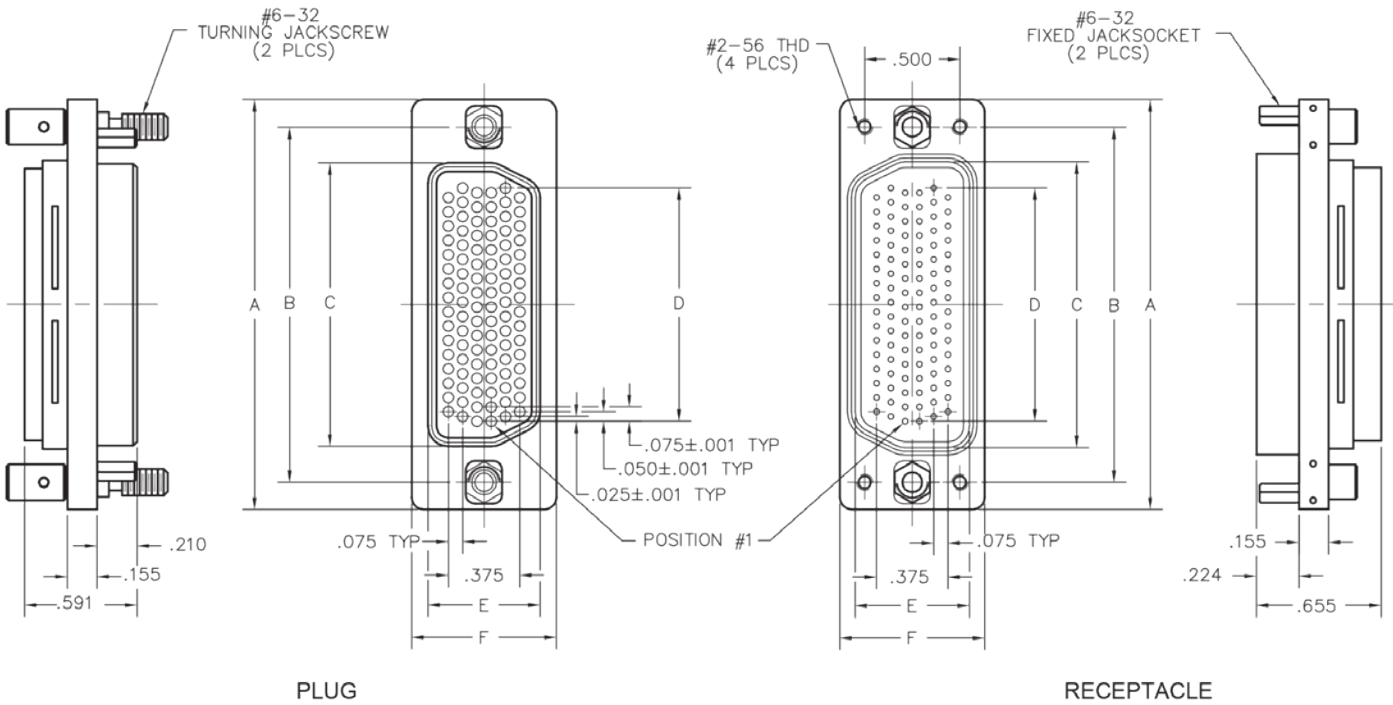
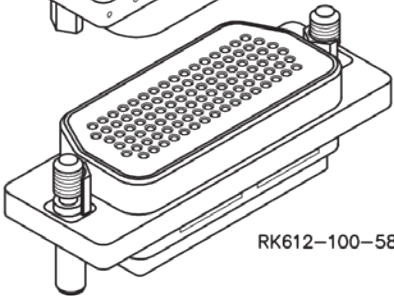
Crimp Removable



RK622-100-181-2901



RK612-100-581-5901

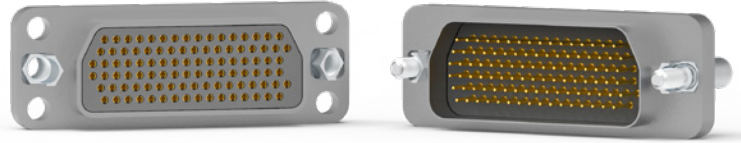


DIMENSIONS									
SIZE	A	B	C		D	E		F	
			PLUG	RCPT		PLUG	RCPT	PLUG	RCPT
50	1.617	1.331	.930	.950	.600	.630	.650	.760	.760
100	2.152	1.866	1.488	1.500	1.225	.590	.600		.760
150	2.784	2.500	2.122	2.134	1.875				

For contact arrangement, see page 27.

## 6-Row, Signal I/O Connector

RK6 is a 24 awg., crimp-removable contact system available in 50, 100 or 150 position body. Available options include panel-mount or I/O, keying hardware, and a full line of backshells.



### Crimp-Removable, Panel-Mount Plug

Sample Part Number — RK612-100-581-2901

RK	6	1				1			
<b>SERIES</b> 24 Awg signal connector	<b>ROWS</b> 6 – 6-Row	<b>STYLE</b> 1 – Plug, straight, panel mount	<b>BODY MATERIAL</b> Polyphenylene sulfide (PPS) with aluminum shell 1 – No shell plating; bare aluminum 2 – Electroless nickel shell plating 3 – Cadmium shell plating	<b>SIZE</b> 050 – 50 contacts 100 – 100 contacts 150 – 150 contacts		<b>PLATING</b> 1 – Gold		<b>HARDWARE</b> 00 – None 29 – Fixed jacksockets	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details
					<b>TERMINATION</b> 58 – Socket, straight, crimp removable, wire barrel 24-26 awg* 59 – Socket, straight, crimp removable, wire barrel 28-30 awg*			<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Crimp-Removable Receptacle

Sample Part Number — RK642-100-181-5901

RK	6	4				1			
<b>SERIES</b> 24 Awg signal connector	<b>ROWS</b> 6 – 6-Row	<b>STYLE</b> 4 – Receptacle, straight, panel mount	<b>BODY MATERIAL</b> Polyphenylene sulfide (PPS) with aluminum shell 1 – No shell plating; bare aluminum 2 – Electroless nickel shell plating 3 – Cadmium shell plating	<b>SIZE</b> 050 – 50 contacts 100 – 100 contacts 150 – 150 contacts		<b>PLATING</b> 1 – Gold		<b>HARDWARE</b> 00 – None 59 – Turning jackscrews	<b>OPTIONS</b> 015 – Hood, 180° exit, uninstalled, contact factory for details 016 – Hood, 90° exit, uninstalled, contact factory for details 017 – Hood, 45° exit, uninstalled, contact factory for details
					<b>TERMINATION</b> 18 – Pin, straight, crimp removable, wire barrel 24-26 awg* 19 – Pin, straight, crimp removable, wire barrel 28-30 awg*			<b>POLARIZATION</b> 00 – No Hardware 01-36 – Polarization position, see page 26, factory installed, for keying hardware options 37 – Universal, non polarized, factory installed	

NOTE: Please consult [airborn.com](http://airborn.com) to configure your part number and for the latest revision controlled drawing and technical data.

### Notes:

1. Crimp tool - AirBorn part number: CDG4601, Mil Spec number MIL-C-22520/2-01
2. Crimp positioner - AirBorn part number: CDG5598 (Pin contacts)  
CDG4602 (Socket contacts)
3. Removal tool - AirBorn part number: CDG8161
4. Crimp instructions - see page 38

\* Full compliment of crimp removable contacts packaged with connectors



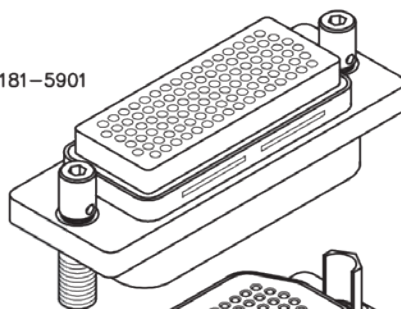
I/O Cable



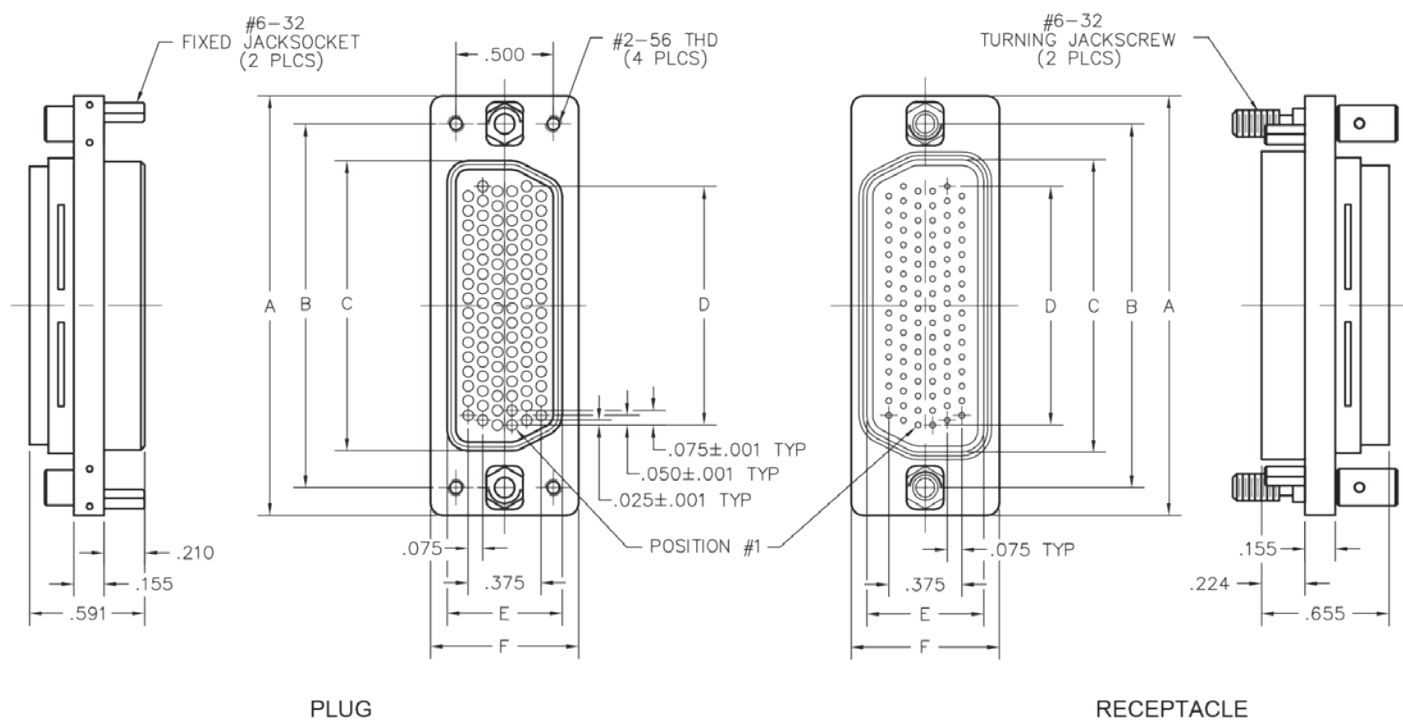
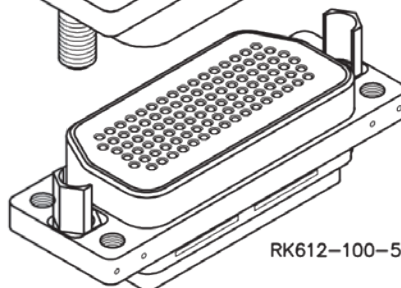
Crimp Removable



RK642-100-181-5901



RK612-100-581-2901



DIMENSIONS								
SIZE	A	B	C		D	E		F
			PLUG	RCPT		PLUG	RCPT	PLUG RCPT
50	1.617	1.331	.930	.950	.600	.630	.650	.810
100	2.152	1.866	1.488	1.500	1.225	.590	.600	.760
150	2.784	2.500	2.122	2.134	1.875	.590	.600	.760

For contact arrangement, see page 27.

## RocKet Specifications

<b>Contacts</b>	BeCu, per ASTM-B196, ASTM B 197/B 197M
<b>Contact Finish</b>	Gold plate per ASTM B 488-, SAE AMS 2422, or localized finish per MIL-C-55302
<b>Shells/Hoods</b>	Aluminum Alloy 6061-T6 per QQ-A-250/11 or 6061-T6511 per QQ-A-200/8
<b>Aluminum Shell Finish</b>	None - as specified by part number or Electroless Nickel per SAE AMS-C-26074, Grade B, Class 3 or Electrodeposited Cadmium per SAE AMS-QQ-P-416, Type II, Class 3
<b>Molded Insulators</b>	Glass filled polphenylene sulfide per MIL-M-24519, Type GST-40F
<b>Embedment</b>	Insulating Compound per MIL-I-16923
<b>Hardware</b>	Corrosion resistant steel per ASTM-A484/ASTM-484M and ASTM-A582/A582M, Passivated per ASTM-A967, SAE AMS-QQ-P-35
<b>Connector Markings</b>	Contact numbers are stamped on the side of the connector. Numbers are stamped on the low-numbered side only on 2- and 3-row right-angle connectors.
<b>Tolerances</b>	Unless otherwise specified: Fractions = $\pm 1/64"$ Decimals = $\pm 0.010"$ Angles = $\pm 5^\circ$

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## RocKet Performance (Reference MIL-C-55302)

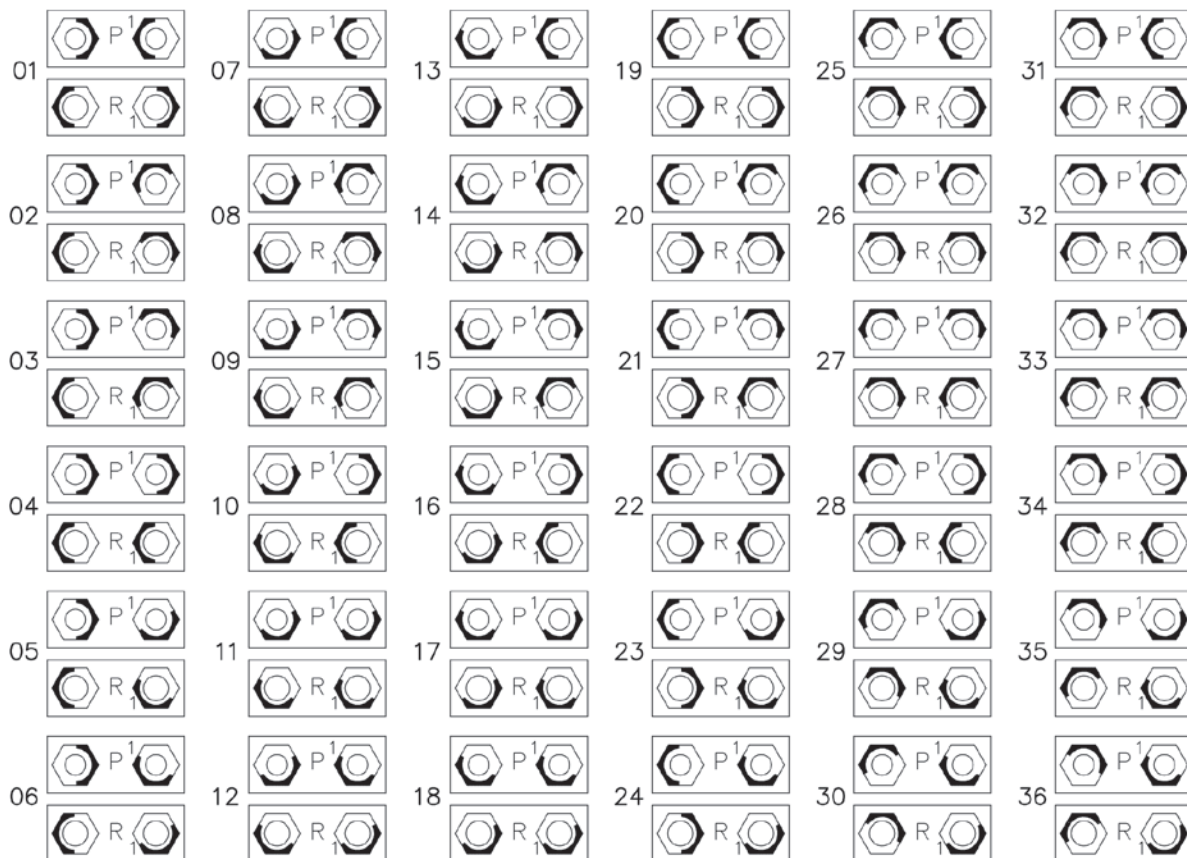
<b>Contact Rating</b>	RK2-8 AWG (42 amperes) RK3-16 AWG (13 amperes) RK4-20 AWG (5 amperes) RK6-24 AWG (3 amperes)
-----------------------	-------------------------------------------------------------------------------------------------------

<b>Operating Temp.</b>	-65° to +125° C or -85° to +257° F
------------------------	------------------------------------

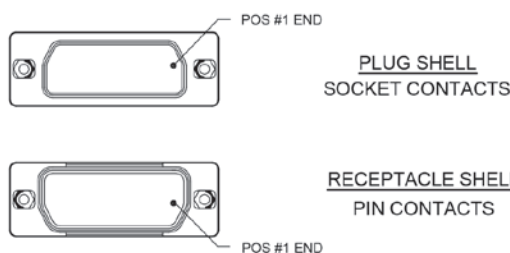
<b>Category</b>	<b>Requirements</b>	<b>Test Method Per: SAE AS 13441</b>
<b>Test Voltage</b>	750 V, RMS, 60 Hz @ sea level 250 V, RMS, 60 Hz @ 70,000 feet	#3001
<b>Insulation Resistance</b>	5,000 megohms minimum @ 500 VDC per	#3003
<b>Durability</b>	500 connector mating cycles	
<b>Vibration</b>	Mated connectors, Test Condition III	#2005
<b>Shock</b>	Mated connectors, Test Condition B	#2004
<b>Salt Spray</b>	Mated connectors, Test Condition G	#1001
<b>Humidity</b>	Test type II, except steps 7A and 7B not required	#1002
<b>Temperature Cycling</b>	Mated connectors, Test condition A	#1003
<b>Contact Resistance</b>	.015 ohms max (interface measurement) @ 3 amperes	#3004
<b>Contact Engagement/ Separation</b>	RK2-8 AWG 160 oz. max. engagement, 4 oz. min. separation RK3-16 AWG 30 oz. max. engagement, 3 oz. min. separation RK4-20 AWG 18 oz. max. engagement, 0.7 oz. min. separation RK6-24 AWG 6 oz. max. engagement, 0.5 oz. min. separation	
<b>Outgassing</b>	The entire connector assembly shall have maximum total mass loss (TML) of 1.0 percent of the original specimen mass and shall have a maximum volatile condensable material (VCM) content of 0.1 percent of the original specimen mass.	

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37 UNIVERSAL

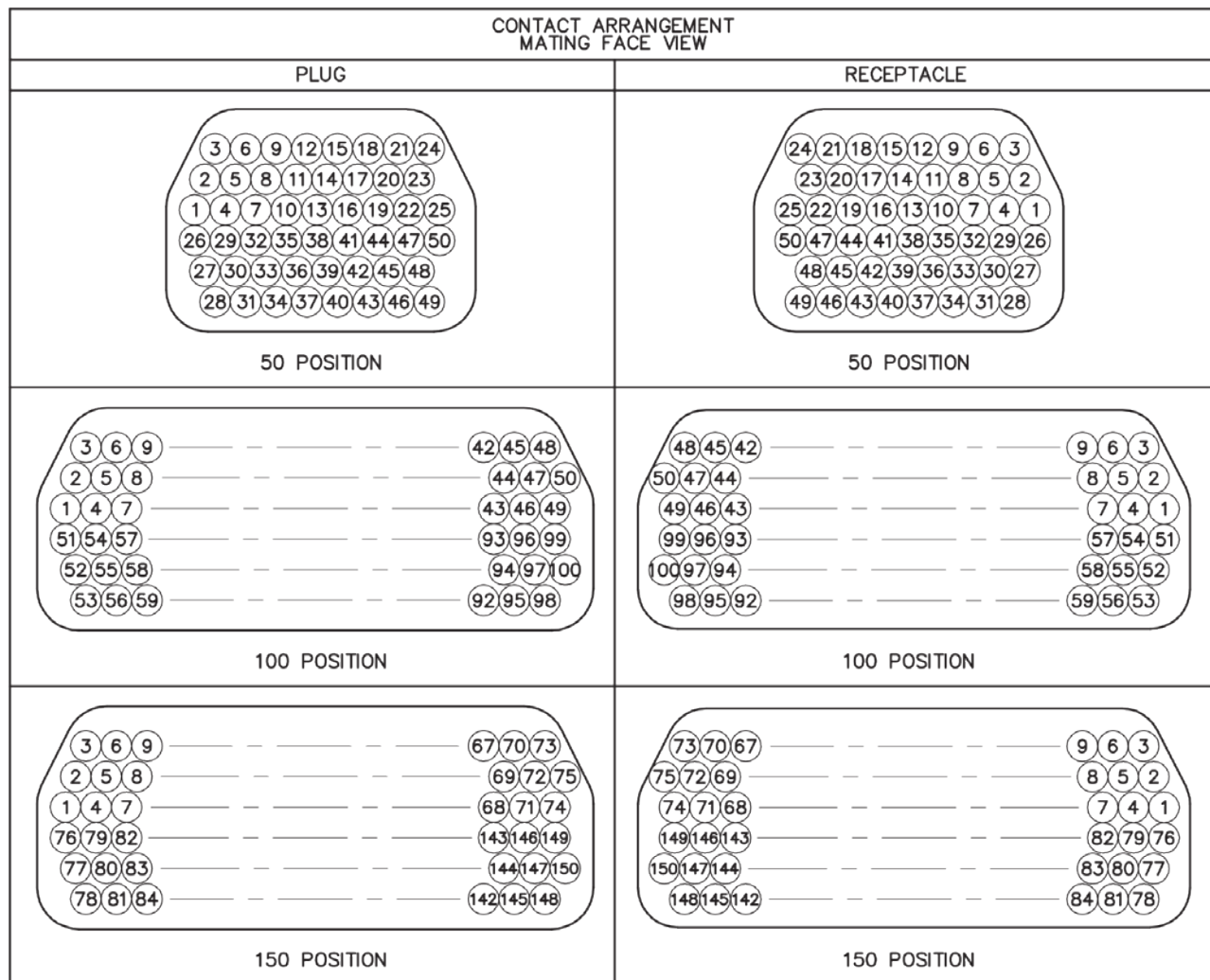


Select the appropriate two digit number above and include as the last two digits of the hardware code in the part number.

Example:  
 Plug RK412-050-201-5901  
 Receptacle RK442-050-301-2901

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## RocKet Contact Arrangement



Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.

### CRIMPING INSTRUCTIONS CONT'D

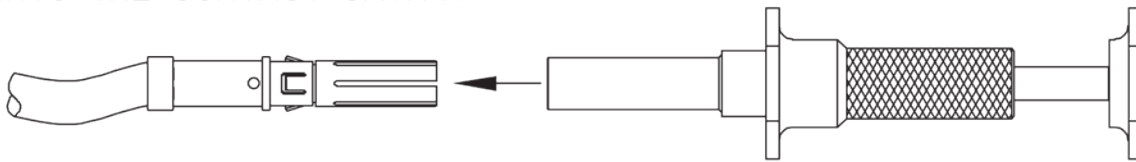
#### 8 AWG CONTACT WITH 8 AWG WIRE BARREL

### INSTALLING CONTACTS

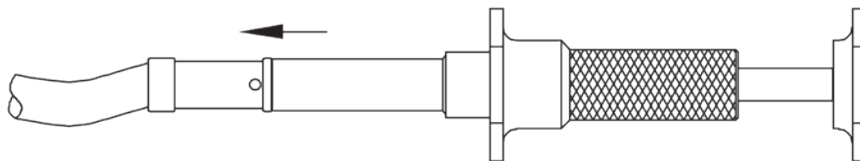
1. CHOOSE CRIMPED WIRE TO BE INSTALLED.
2. HOLD CONTACT BETWEEN THUMB AND INDEX FINGER AT THE BACK OF THE CONTACT BARREL.
3. INSERT CONTACT INTO CONTACT CAVITY FROM THE REAR OF CONNECTOR.
4. PUSH CONTACT INTO CAVITY UNTIL RETAINER IS ENGAGED.  
GENTLY PULL BACK ON THE WIRE TO ENSURE SEATING.  
IF CONTACT IS PROPERLY SEATED, IT WILL NOT COME OUT OF CONNECTOR WITHOUT THE AID OF THE REMOVAL TOOL.

### REMOVING CONTACTS

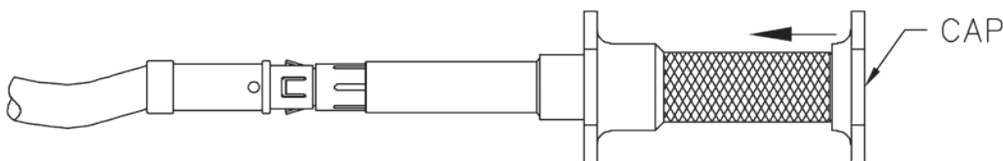
1. IN THE EVENT THAT A WIRE MUST BE EXTRACTED FROM THE CONTACT CAVITY, THE REMOVAL TOOL IS REQUIRED.
2. IN THE FRONT OF THE CONNECTOR(MATING FACE), INSERT REMOVAL TOOL INTO THE CONTACT CAVITY.



3. PRESS THE REMOVAL TOOL DOWN UNTIL THE RETAINER IS RELEASED.



4. PRESS CAP OF TOOL TO DISLODGE CONTACT FROM CAVITY.



5. PULL WIRE AND CONTACT FREE FROM BACK OF CONNECTOR.

Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.



### CRIMPING INSTRUCTIONS

8 AWG CONTACT WITH  
8 AWG WIRE BARREL

#### TOOLS REQUIRED

1. AIRBORN PN CDG14569—CRIMP TOOL
2. AIRBORN PN CDG14570—POSITIONER FOR PIN AND SOCKET CONTACTS
3. AIRBORN PN CDG5418—REMOVAL TOOL

#### CRIMPING PROCESS

1. INSTALL POSITIONER ONTO CRIMP TOOL.
2. STRIP INSULATION OF WIRE  $.510 \pm .010$
3. DROP CONTACT INTO THE NEST OF THE CRIMP TOOL, MAKING SURE THAT IT BOTTOMS OUT IN THE POSITIONER.

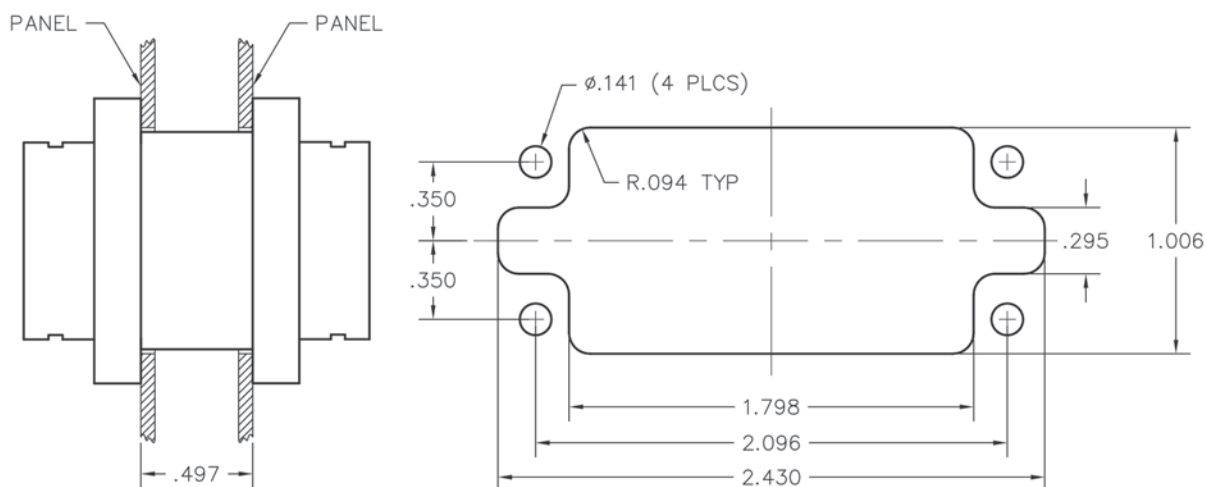


4. INSERT STRIPPED END OF WIRE INTO CRIMP BARREL OF CONTACT. INSULATION SHOULD EXTEND INTO INSULATION CUP.
5. CRIMP CONTACT BY DEPRESSING FOOT PEDAL
6. VISUALLY INSPECT CRIMP:
  - A. WIRE INSULATION SHOULD EXTEND INTO INSULATION CUP. THERE SHOULD NOT BE A GAP BETWEEN INSULATION AND INSULATION CUP.
  - B. THERE SHOULD BE STRANDS OF WIRE VISIBLE THRU THE INSPECTION HOLE IN THE BARREL OF THE CONTACT.

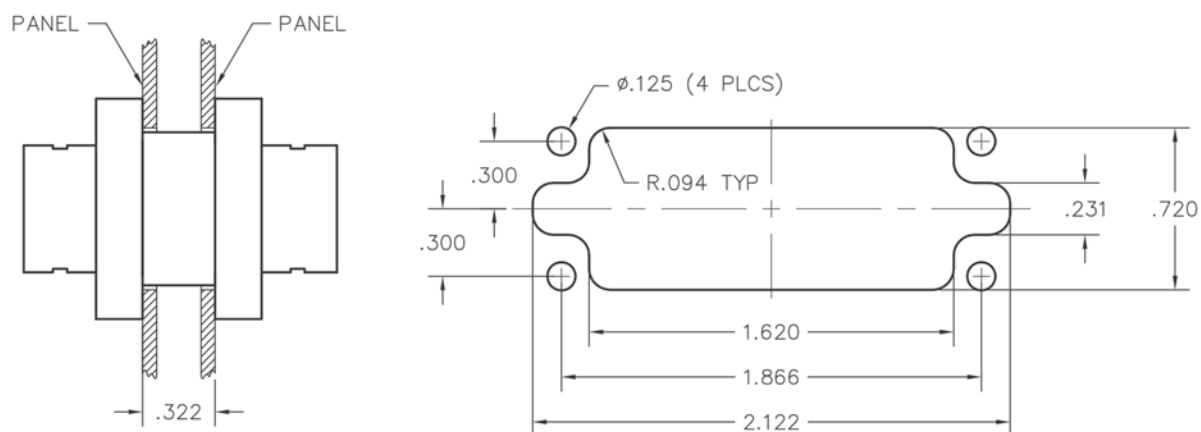
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## 2 & 3 Row Panel-Mounting Dimensions

### RK2



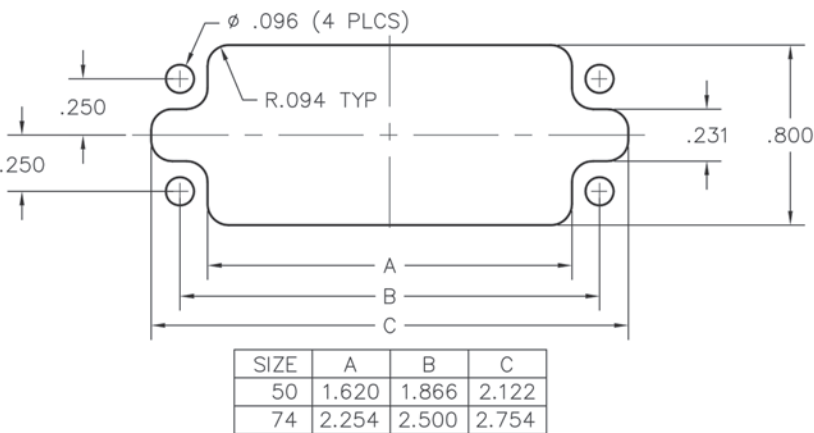
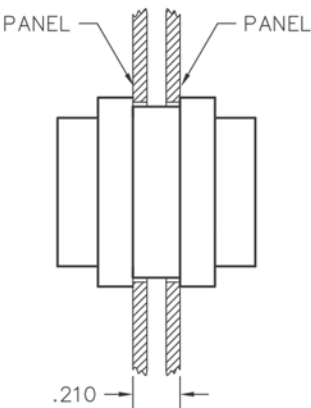
### RK3



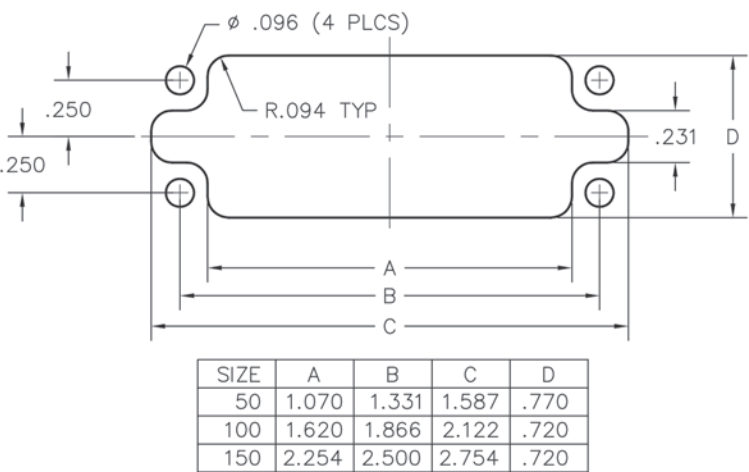
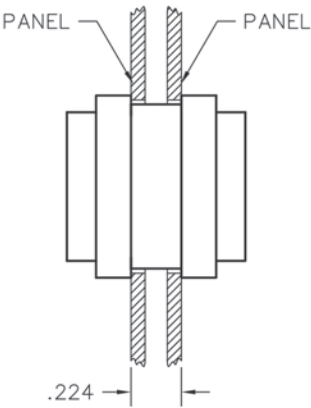
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4 & 6 Row Panel-Mounting Dimensions

RK4



RK6



Please consult the AirBorn website for the latest revision of this document prior to beginning any design work.



## CRIMPING INSTRUCTIONS

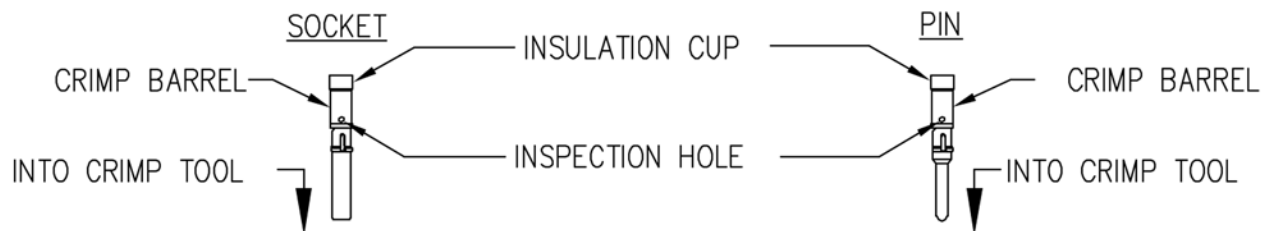
16 AWG CONTACT WITH  
16 AWG WIRE BARREL

### TOOLS REQUIRED

1. AIRBORN PART NUMBER CDG14571—CRIMP TOOL (MIL-C-22520/1-01)
2. AIRBORN PART NUMBER CDG14572—TURRET FOR PINS AND SOCKETS (MIL-C-22520/1-03)
3. AIRBORN PART NUMBER CDG4492—INSERTION TOOL
4. AIRBORN PART NUMBER CDG4493—REMOVAL TOOL

### CRIMPING PROCESS

1. STRIP INSULATION OF WIRE  $.200 \pm .010$ .
2. INSTALL TURRET ONTO CRIMP TOOL.
3. SELECT THE BLUE/RED BUTTON ON THE TURRET
4. TURN DIAL ON BACK OF CRIMP TOOL TO SETTING 7.  
THIS IS A BASELINE SETTING. SEE "GUIDELINES FOR ESTABLISHING TENSILE VALUE FOR CRIMP".
5. DROP CONTACT INTO THE NEST OF THE CRIMP TOOL, MAKING SURE THAT IT BOTTOMS OUT IN THE TURRET.



6. INSERT STRIPPED END OF WIRE INTO CRIMP BARREL OF CONTACT.  
INSULATION SHOULD EXTEND INTO INSULATION CUP.
7. CRIMP CONTACT BY SQUEEZING HANDLES TOGETHER. CRIMP IS COMPLETE WHEN HANDLES RELEASE TO ORIGINAL POSITION.
8. VISUALLY INSPECT CRIMP:
  - A. THERE SHOULD BE NO GAP BETWEEN INSULATION AND CRIMP BARREL.
  - B. THERE SHOULD BE STRANDS OF WIRE VISIBLE THRU THE INSPECTION HOLE IN THE CRIMP BARREL.
  - C. THERE SHOULD BE NO STRANDS OF WIRE OUTSIDE THE CRIMP BARREL.

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**GUIDELINES FOR ESTABLISHING  
TENSILE VALUE FOR CRIMP**

**EQUIPMENT REQUIRED:**

FORCE GAGE  
WIRE—FROM LOT TO BE USED FOR PRODUCT  
CONTACT—FROM LOT TO BE USED FOR PRODUCT  
CRIMP TOOL  
TURRET

**PROCEDURE TO ESTABLISH TENSILE VALUE OF WIRE:**

1. CUT 10 PIECES OF WIRE (ABOUT 2–3 INCHES LONG)
2. REMOVE INSULATOR FROM ENTIRE LENGTH OF WIRE
3. TIN APPROXIMATELY 1.00" ON BOTH ENDS
4. PERFORM TENSILE TEST ON FORCE GAGE
5. DETERMINE AVERAGE TENSILE VALUE OF WIRE

**PROCEDURE TO ESTABLISH TENSILE VALUE OF CRIMP**

1. CUT 10 PIECES OF WIRE (ABOUT 2–3 INCHES LONG)
2. STRIP WIRE .200±.010" ON ONE END AND 1.00" ON OTHER END
3. TIN END OF WIRE THAT IS STRIPPED 1.00"
4. TURN DIAL ON BACK OF CRIMP TOOL TO SETTING 7
5. CRIMP CONTACT ON .200" STRIPPED END
6. PERFORM TENSILE TEST ON FORCE GAGE
7. RECORD ALL 10 READINGS.
8. DETERMINE AVERAGE TENSILE VALUE OF CRIMP
9. TENSILE VALUE OF CRIMP SHOULD BE 75% OF TENSILE VALUE OF WIRE
10. UNDER MAGNIFICATION, EXAMINE CRIMP.  
PREFERRED CRIMP FAILURE IS BREAKAGE OF THE WIRE STRANDS OUTSIDE THE CRIMP BARREL.  
A CRIMP IS CONSIDERED UNACCEPTABLE IF THE WIRE PULLS OUT OF THE WIRE BARREL WITHOUT BREAKING THE WIRE STRANDS.
11. IF WIRE PULLS OUT OF THE WIRE BARREL WITHOUT BREAKING THE WIRE STRANDS, SELECT THE NEXT LOWER SETTING NUMBER ON THE CRIMP TOOL AND REPEAT PROCEDURE TO ESTABLISH TENSILE VALUE OF CRIMP.  
THE LOWER THE SETTING NUMBER ON THE CRIMP TOOL, THE TIGHTER THE CRIMP.

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### CRIMPING INSTRUCTIONS

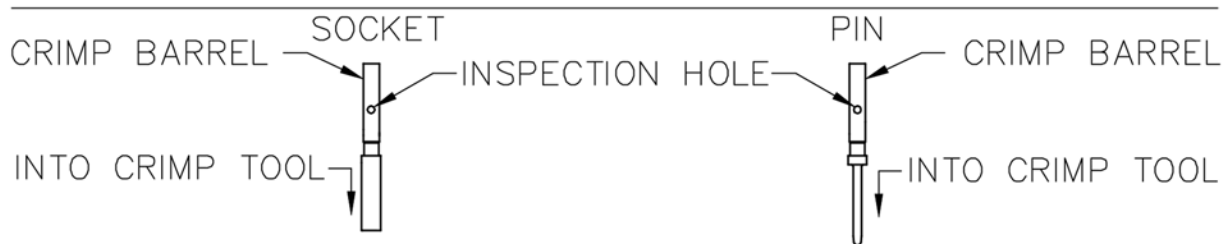
24 AWG CONTACT WITH  
24, 26, 28 AND 30 AWG WIRE BARREL

#### TOOLS REQUIRED

1. AIRBORN PN CDG4601—CRIMP TOOL
2. AIRBORN PN CDG4602—POSITIONER FOR SOCKET CONTACTS
3. AIRBORN PN CDG5598—POSITIONER FOR PIN CONTACTS
4. AIRBORN PN CDG8161—REMOVAL TOOL

#### CRIMPING PROCESS

1. SELECT CORRECT POSITIONER FOR THE PIN OR SOCKET CONTACT.
2. INSTALL POSITIONER ONTO BACK OF CRIMP TOOL.
3. CHOOSE "SELECTION NUMBER" FROM POSITIONER FOR THE WIRE AWG THAT HAS BEEN SELECTED FOR YOUR APPLICATION. SET CRIMP TOOL TO THAT SELECTION NUMBER.
4. STRIP INSULATION OF WIRE  $.145 \pm .005$
5. DROP CONTACT INTO THE NEST OF THE CRIMP TOOL, MAKING SURE THAT IT BOTTOMS OUT ON THE POSITIONER.



6. INSERT STRIPPED END OF WIRE INTO BARREL OF CONTACT. INSULATION SHOULD BE FLUSH WITH BACK OF CONTACT BARREL.
7. CRIMP CONTACT BY SQUEEZING HANDLES TOGETHER. CRIMP IS COMPLETE WHEN THE HANDLES RELEASE TO ORIGINAL POSITION.
8. VISUALLY INSPECT CRIMP:  
THERE SHOULD BE NO GAP MIN./ONE WIRE DIA MAX. BETWEEN INSULATION AND BARREL OF CONTACT.  
THERE SHOULD BE STRANDS OF WIRE VISIBLE THRU THE INSPECTION HOLE IN THE BARREL OF THE CONTACT.

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**CRIMPING INSTRUCTIONS**

20 AWG CONTACT WITH  
20,24–26 OR 28–30 AWG BARREL

**TOOLS REQUIRED**

1. AIRBORN PN CDG4601—CRIMP TOOL
2. AIRBORN PN CDG7935—POSITIONER FOR SOCKET CONTACTS
3. AIRBORN PN CDG7936—POSITIONER FOR PIN CONTACTS
4. AIRBORN PN CDG7932—REMOVAL TOOL

**CRIMPING PROCESS**

1. SELECT CORRECT POSITIONER FOR THE PIN OR SOCKET CONTACT.
2. INSTALL POSITIONER ONTO BACK OF CRIMP TOOL.
3. TO DETERMINE WHICH "SELECTION NUMBER" TO CHOOSE ON THE CRIMP TOOL, BEGIN BY DETERMINING THE TENSILE STRENGTH OF THE WIRE TO BE USED.

FOR EXAMPLE, IF USING 20 AWG WIRE BEGIN BY TURNING "SELECTION NUMBER" TO 6. CRIMP TEST CONTACTS(3–5 PIECES). PERFORM TENSILE TEST. TENSILE TEST RESULTS ARE INVALID IF (1)ANY STRANDS OF WIRE ARE NOT CAPTURED IN BARREL, (2)STRANDS ARE NICKED OR CUT BEFORE TEST, (3) WIRE BROKE AT SHARP EDGE OF TEST FIXTURE, OR (4)WIRE PULLED OUT OF BARREL WITHOUT BREAKING STRANDS.

IF TENSILE STRENGTH VALUES ARE NOT 75% (MINIMUM) OF TENSILE STRENGTH OF WIRE, CHANGE "SELECTION NUMBER". CRIMP ANOTHER GROUP OF TEST CONTACTS(3–5 PIECES) AND PERFORM TENSILE TEST AGAIN.

CONTINUE THIS PROCESS UNTIL TENSILE STRENGTH OF CRIMP MEETS OR EXCEEDS 75% OF TENSILE STRENGTH OF WIRE.

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### CRIMPING INSTRUCTIONS CONT'D

20 AWG CONTACT WITH  
20,24–26 OR 28–30 AWG BARREL

4. STRIP LENGTH OF INSULATION:  
24–26 AND 28–30 AWG:  $.145 \pm .005$   
20 AWG:  $.190 \pm .005$
5. DROP CONTACT INTO THE NEST OF THE CRIMP TOOL, MAKING SURE THAT IT BOTTOMS OUT ON THE POSITIONER.



6. INSERT STRIPPED END OF WIRE INTO BARREL OF CONTACT. INSULATION SHOULD BE FLUSH WITH BACK OF CONTACT BARREL.
7. CRIMP CONTACT BY SQUEEZING HANDLES TOGETHER. CRIMP IS COMPLETE WHEN THE HANDLES RELEASE TO ORIGINAL POSITION.
8. VISUALLY INSPECT CRIMP:  
THERE SHOULD BE NO GAP MIN./ONE WIRE DIA MAX. BETWEEN INSULATION AND BARREL OF CONTACT.  
THERE SHOULD BE STRANDS OF WIRE VISIBLE THRU THE INSPECTION HOLE IN THE BARREL OF THE CONTACT.

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### **CRIMPING INSTRUCTIONS CONT'D**

20 AWG CONTACT WITH  
20,24–26 OR 28–30 AWG BARREL

#### **INSTALLING CONTACTS**

1. CHOOSE CRIMPED WIRE TO BE INSTALLED.
2. HOLD CONTACT BETWEEN THUMB AND INDEX FINGER AT THE BACK OF THE CONTACT BARREL.
3. INSERT CONTACT INTO CONNECTOR UNTIL A DEFINITE "CLICK" IS HEARD. GENTLY PULL BACK ON THE WIRE TO CONFIRM SEATING.

IF CONTACT IS PROPERLY SEATED, IT WILL NOT COME OUT OF CONNECTOR WITHOUT THE AID OF THE REMOVAL TOOL.

#### **REMOVING CONTACTS**

1. IN THE EVENT THAT A WIRE MUST BE EXTRACTED FROM THE CONTACT CAVITY, THE REMOVAL TOOL IS REQUIRED.
2. OPEN REMOVAL TOOL AND PLACE TIP AROUND THE WIRE INSULATION.
3. MOVE THE TOOL SO THAT THE TIP GOES DOWN INTO THE CONTACT CAVITY.
4. WHILE PRESSING THE TOOL DOWN, ROTATE THE HANDLE BACK AND FORTH.
5. WHEN THE TIP OF THE HANDLE IS DOWN AS FAR AS IT WILL GO, THE CONTACT IS READY TO BE REMOVED.
6. MAKING SURE TO KEEP THE TIP OF THE TOOL PERPENDICULAR TO THE CONNECTOR, PULL TOOL FREE OF THE CONTACT CAVITY.
7. OPEN REMOVAL TOOL AND REMOVE THE EXTRACTED WIRE.

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## CRIMPING INSTRUCTIONS

24 AWG CONTACT WITH  
24, 26, 28 AND 30 AWG WIRE BARREL

### TOOLS REQUIRED

1. AIRBORN PN CDG4601—CRIMP TOOL
2. AIRBORN PN CDG4602—POSITIONER FOR SOCKET CONTACTS
3. AIRBORN PN CDG5598—POSITIONER FOR PIN CONTACTS
4. AIRBORN PN CDG8161—REMOVAL TOOL

### CRIMPING PROCESS

1. SELECT CORRECT POSITIONER FOR THE PIN OR SOCKET CONTACT.
2. INSTALL POSITIONER ONTO BACK OF CRIMP TOOL.
3. CHOOSE "SELECTION NUMBER" FROM POSITIONER FOR THE WIRE AWG THAT HAS BEEN SELECTED FOR YOUR APPLICATION. SET CRIMP TOOL TO THAT SELECTION NUMBER.
4. STRIP INSULATION OF WIRE  $.145 \pm .005$
5. DROP CONTACT INTO THE NEST OF THE CRIMP TOOL, MAKING SURE THAT IT BOTTOMS OUT ON THE POSITIONER.



6. INSERT STRIPPED END OF WIRE INTO BARREL OF CONTACT. INSULATION SHOULD BE FLUSH WITH BACK OF CONTACT BARREL.
7. CRIMP CONTACT BY SQUEEZING HANDLES TOGETHER. CRIMP IS COMPLETE WHEN THE HANDLES RELEASE TO ORIGINAL POSITION.
8. VISUALLY INSPECT CRIMP:  
THERE SHOULD BE NO GAP MIN./ONE WIRE DIA MAX. BETWEEN INSULATION AND BARREL OF CONTACT.  
THERE SHOULD BE STRANDS OF WIRE VISIBLE THRU THE INSPECTION HOLE IN THE BARREL OF THE CONTACT.

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### CRIMPING INSTRUCTIONS CONT'D

24 AWG CONTACT WITH  
24, 26, 28 AND 30 AWG WIRE BARREL

#### INSTALLING CONTACTS

1. CHOOSE CRIMPED WIRE TO BE INSTALLED.
2. HOLD CONTACT BETWEEN THUMB AND INDEX FINGER AT THE BACK OF THE CONTACT BARREL.
3. INSERT CONTACT INTO CONNECTOR UNTIL A DEFINITE "CLICK" IS HEARD. GENTLY PULL BACK ON THE WIRE TO INSURE SEATING.

IF CONTACT IS PROPERLY SEATED, IT WILL NOT COME OUT OF CONNECTOR WITHOUT THE AID OF THE REMOVAL TOOL.

#### REMOVING CONTACTS

1. IN THE EVENT THAT A WIRE MUST BE EXTRACTED FROM THE CONTACT CAVITY, THE REMOVAL TOOL IS REQUIRED.
2. OPEN REMOVAL TOOL AND PLACE TIP AROUND THE WIRE INSULATION.
3. MOVE THE TOOL SO THAT THE TIP GOES DOWN INTO THE CONTACT CAVITY.
4. WHILE PRESSING THE TOOL DOWN, ROTATE THE HANDLE BACK AND FORTH.
5. WHEN THE TIP OF THE HANDLE IS DOWN AS FAR AS IT WILL GO, THE CONTACT IS READY TO BE REMOVED.
6. MAKING SURE TO KEEP THE TIP OF THE TOOL PERPENDICULAR TO THE CONNECTOR, PULL TOOL FREE OF THE CONTACT CAVITY.
7. OPEN REMOVAL TOOL AND REMOVE THE EXTRACTED WIRE.

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### CRIMPING INSTRUCTIONS

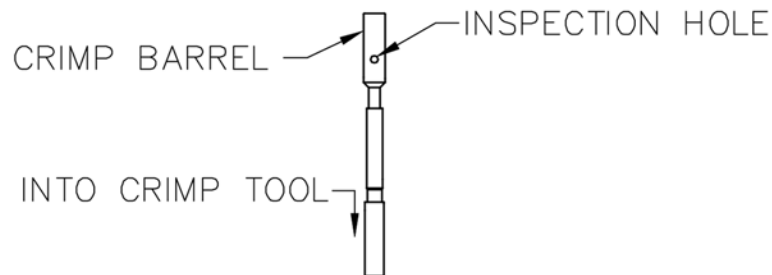
24 AWG CONTACT WITH  
22 AND 20 AWG WIRE BARREL

#### TOOLS REQUIRED

1. AIRBORN PN CDG4601—CRIMP TOOL
2. AIRBORN PN CDG4603—POSITIONER FOR SOCKET CONTACTS
3. AIRBORN PN CDG8161—REMOVAL TOOL

#### CRIMPING PROCESS

1. INSTALL POSITIONER ONTO BACK OF CRIMP TOOL.
2. CHOOSE "SELECTION NUMBER" FROM POSITIONER FOR THE WIRE AWG THAT HAS BEEN SELECTED FOR YOUR APPLICATION. SET CRIMP TOOL TO THAT SELECTION NUMBER.
3. STRIP INSULATION OF WIRE  $.145 \pm .005$
4. DROP CONTACT INTO THE NEST OF THE CRIMP TOOL, MAKING SURE THAT IT BOTTOMS OUT ON THE POSITIONER.



5. INSERT STRIPPED END OF WIRE INTO BARREL OF CONTACT. INSULATION SHOULD BE FLUSH WITH BACK OF CONTACT BARREL.
6. CRIMP CONTACT BY SQUEEZING HANDLES TOGETHER. CRIMP IS COMPLETE WHEN THE HANDLES RELEASE TO ORIGINAL POSITION.
7. VISUALLY INSPECT CRIMP:  
THERE SHOULD BE NO GAP MIN./ONE WIRE DIA MAX. BETWEEN INSULATION AND BARREL OF CONTACT.  
THERE SHOULD BE STRANDS OF WIRE VISIBLE THRU THE INSPECTION HOLE IN THE BARREL OF THE CONTACT.

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## CRIMPING INSTRUCTIONS CONT'D

24 AWG CONTACT WITH  
22 AND 20 AWG WIRE BARREL

### INSTALLING CONTACTS

1. CHOOSE CRIMPED WIRE TO BE INSTALLED.
2. HOLD CONTACT BETWEEN THUMB AND INDEX FINGER AT THE BACK OF THE CONTACT BARREL.
3. INSERT CONTACT INTO CONNECTOR UNTIL A DEFINITE "CLICK" IS HEARD. GENTLY PULL BACK ON THE WIRE TO INSURE SEATING.

IF CONTACT IS PROPERLY SEATED, IT WILL NOT COME OUT OF CONNECTOR WITHOUT THE AID OF THE REMOVAL TOOL.

### REMOVING CONTACTS

1. IN THE EVENT THAT A WIRE MUST BE EXTRACTED FROM THE CONTACT CAVITY, THE REMOVAL TOOL IS REQUIRED.
2. THE WIRE BARREL MUST BE CUT OFF BEFORE USING REMOVAL TOOL.
3. OPEN REMOVAL TOOL AND PLACE TIP AROUND THE WIRE INSULATION.
4. MOVE THE TOOL SO THAT THE TIP GOES DOWN INTO THE CONTACT CAVITY.
5. CONTINUE TO LIGHTLY PRESS DOWN. IF RESISTANCE IS MET, ROTATE FORTH IF TOOL MEETS ANY RESISTANCE.
6. WHEN THE TIP OF THE HANDLE IS DOWN AS FAR AS IT WILL GO, THE CONTACT IS READY TO BE REMOVED.
7. MAKING SURE TO KEEP THE TIP OF THE TOOL PERPENDICULAR TO THE CONNECTOR, PULL TOOL FREE OF THE CONTACT CAVITY.
8. OPEN REMOVAL TOOL AND REMOVE THE EXTRACTED WIRE.

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# The AirBorn Advantage

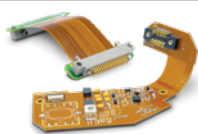
Model-To-Market  
Solutions



Custom  
Power  
Systems



COTS VPX  
Power Supply  
Power Blade



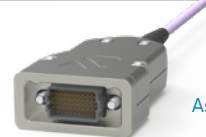
Flexible  
Circuit  
Assemblies



Cable  
Assemblies



FUZE  
Assemblies



Active  
Optical  
Assemblies



Rectangular  
W Series



Rectangular  
R Series



Micro D  
M Series



Nano D  
N Series



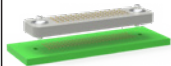
High-Speed  
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verSI



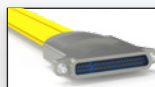
Modular Hybrid  
Slnergy



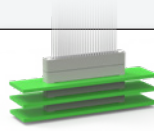
Macro D  
RockT



Z Axis Interposer  
Z Series



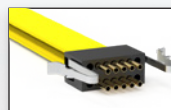
High-Speed  
Micro D  
microSI



Stackable  
RC Series



Circulars  
Series 360



Strip Connector  
AirStrip



PowerAmp  
13A or 23A



Rugged Circulars  
TriMate

RKC-2.24

# AirBorn

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