

### **Manufactured Exclusively by Metra Electronics:**

Heise LED Lighting Systems are engineered and manufactured to meet all international standards. Heise's product line of bright, durable, state-of-the-art LED lights continues to grow, making it one of the top global leaders in the lighting market.

iBEAM Safety Systems manufactures dependable products for safer driving. iBEAM products utilize the latest technology and highquality materials to help make blind spots a thing of the past.

The Install Bay is a one-stop-shop for reliable and cost-effective products in the aftermarket automotive accessories industry. These tools, hardware, and installation accessories are trusted in the majority of today's professional install shops.

Metra's 70+ year history, experience and approach to engineering and manufacturing ensures that all of these brands' products stand out among the competitors and are the highest quality available.

# HIGH PERFORMANCE

# TRAILER LIGHTING & ACCESSORIES

Auxiliary driving and fog lights are intended for use solely as auxiliary lighting. They are not intended to be used for headlight purposes, nor are they certified for headlight usage. Auxiliary lights are designed to improve visibility during night time driving and inclement weather. Irresponsible use of any auxiliary light can be dangerous and illegal. Auxiliary driving lights are intended to supplement the high-beam of a standard headlamp system. They are not intended for use alone or with the low-beam of a standard headlamp system. Lighting laws vary from state to state.

**WARNING:** This catalog does not advise whether a State of California Proposition 65 warning is required for a particular item of merchandise. To learn whether a particular item of merchandise requires a California Proposition 65 warning. please be sure to look up and read the particular merchandise's listing on Metra's website www.HeiseLED.com, as well as read the particular merchandise's packaging. When a California Proposition 65 warning is present on Metra's website listing for the particular merchandise, or on the particular merchandise's packaging, a compliant California Proposition 65 warning is to be provided to the purchasing California consumer prior to the sale of the particular merchandise.

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### **Better Construction, Inside and Out**

Heise's LED lighting products integrate advanced thermal management, short circuit and open circuit protection and many other innovative features to repel moisture and extend the overall life of the product. Many of the lights are designed with virtually unbreakable materials to withstand the elements in even the harshest environments. All products undergo rigorous testing during the development and manufacturing process and once again before leaving the factory.

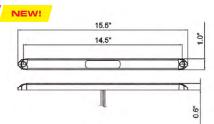
### TRAILER LIGHT LED BAR

### HE-TR1501

### THINLINE LED STOP/TURN/TAIL/BACKUP LIGHT

**13**LED

- 10 LEDs: Stop, turn, taillight functions
- Hard wire connections
- FMVSS S T I R/U3
- @12VDC .1A for backup
- 3 LEDs for backup lights
- Red & white polycarbonate lens
- @ 12VDC .445A for stop/turn LEDs
- @12VDC .03A for taillight







### **OVAL TRAILER LED**

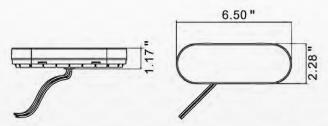
### **HE-TR6001**

SINCH OVAL TRAILER LED LIGHT W/ GROMMET

**14**LED

VEW!

- 14 red LEDs: Stop, turn, taillight functions
- PL-3 connector
- PMMA lens and ABS housing
- @12VDC .06A for taillight
- Sonically sealed, weather-resistant
- 6" rubber grommet
- FMVSS S2 T2 I6 / I6 / R





### **HE-TR6002**

SINCH OVAL TRAILER LED LIGHT W/ GROMMET

**14**LED

NEW!

- 14 amber LEDs: Turn functions
- PL-3 connector
- PMMA lens and ABS housing
- @12VDC .06A for taillight
- Sonically sealed, weather-resistant
- 6" rubber grommet
- FMVSS S2 T2 I6 / I6 / R



### **HE-TR6003**

INCH OVAL TRAILER LED LIGHT W/ GROMMET

**14**LED

NEW!

- 14 white LEDs: Backup function
- PL-3 connector
- PMMA lens and ABS housing
- @12VDC .24A for backup
- Sonically sealed, weather-resistant
- 6" rubber grommet
- FMVSS S2 T2 I6 / I6 / R





### **OVAL TRAILER LED**

HE-TR6004 SINCH OVAL LED STOP/TURN/TAIL/BACKUP LIGHT

NEW!

- 10 LEDs: Stop, turn, taillight functions
- Sonically sealed, weather-resistant
- PMMA lens and ABS housing
- 12VDC .43A for stop/turn LEDs
- @12VDC .06A for taillight
- 4 LEDs for backup lights
- PL-3 connector + male bullet
- FMVSS S2 T2 I6 R
- @12VDC .24A for backup



### **HE-TR6005**

INCH OVAL TRAILER LED LIGHT

14<sub>LED</sub>

NEW!

- 14 red LEDs: Stop, turn, taillight functions
   PL-3 connector
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- @12VDC .06A for taillight
- PMMA lens and ABS housing
- @ 12VDC .38A for stop/turn LEDs



### **HE-TR6006**

S INCH OVAL TRAILER LED LIGHT

14 LED

NEW!

- 14 amber LEDs: Turn functions
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- PL-3 connector
- PMMA lens and ABS housing
- @12VDC .06A for turn signal



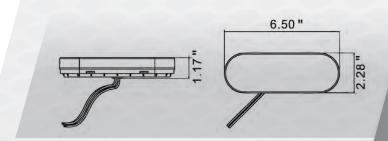
### **HE-TR6007**

INCH OVAL TRAILER LED LIGHT

14 LED

NEW!

- 14 white LEDs: Backup functions
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- PL-3 connector
- PMMA lens and ABS housing
- @12VDC .24A for backup





**OPTIONAL PARTS** FOR 6 INCH OVAL LED LIGHTS PG 11

**HE-TRM101** Surface Mount HE-TRM102 Rubber Grommet

### ROUND TRAILER LED

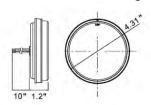
### **HE-TR4001**

INCH ROUND TRAILER LED LIGHT WITH GROMMET

**14** LED

NEW!

- 14 red LEDs: Stop, turn, taillight functions
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- @ 12VDC .38A for stop/turn LEDs
- PL-3 connector with grommet
- PMMA lens and ABS housing





### HE-TR4002

4 INCH ROUND TRAILER LED LIGHT WITH GROMMET

NEW!

- 14 amber LEDs: Turn functions
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- PL-3 connector with grommet
- PMMA lens and ABS housing
- @12VDC .06A for turn



### HE-TR4003

INCH ROUND TRAILER LED LIGHT WITH GROMMET

**14**LED

NEW!

- 14 white LEDs: Backup functions
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- PL-3 connector with grommet
- PMMA lens and ABS housing
- @12VDC .24A for backup



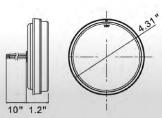


### **HE-TR4004**

INCH ROUND LED STOP/TURN/ TAIL/BACKUP LIGHT

NEW!

- 10 LEDs: Stop, turn, taillight functions
- PL-3 connector + male bullet
- PMMA lens and ABS housing
- @ 12VDC .43A for stop/turn LEDs
- @12VDC .06A for taillight
- 4 LEDs for backup lights
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- @12VDC .24A for backup



**OPTIONAL PARTS** FOR 4 INCH ROUND LED LIGHTS PG 11

**HE-TRM103** Surface Mount **HE-TRM104** Rubber Grommet

### ROUND TRAILER LED



HE-TR4005

4 INCH ROUND TRAILER LED LIGHT

**14** LED

NEW!

- 14 red LEDs: Stop functions
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- PL-3 connector
- PMMA lens and ABS housing
- @12VDC .06A for taillight



HE-TR4006

4 INCH ROUND TRAILER LED LIGHT

NEW!

- 14 amber LEDs: Turn functions
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- PL-3 connector
- Amber PMMA lens and ABS housing
- @12VDC .06A for turn



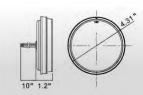
HE-TR4007

4 INCH ROUND TRAILER LED LIGHT

**14** LED

NEW!

- 14 white LEDs: Backup functions
- Sonically sealed, weather-resistant
- FMVSS S2 T2 I6 / I6 / R
- PL-3 connector
- PMMA lens and ABS housing
- @12VDC .24A for backup



OPTIONAL PARTS
FOR 4 INCH ROUND LED LIGHTS PG 11

**HE-TRM103** Surface Mount HE-TRM104 Rubber Grommet

### MARKER / CLEARANCE LIGHT WITH REFLECTOR

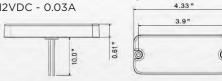
### **HE-TRRF01**

MARKER / CLEARANCE LIGHT WITH REFLECTOR



NEW!

- 2 LED: Side marker functions
- Hardwire connections
- FMVSS A2 P2
- Red LED and reflector in one
- PMMA lens and ABS housing
- @12VDC 0.03A





### **HE-TRRF02**

MARKER / CLEARANCE LIGHT WITH REFLECTOR





- 2 LED: Side marker function
- Hardwire connections
- FMVSS A2 P2
- · Amber LED and reflector in one
- PMMA lens and ABS housing
- @12VDC 0.03A









### **ROUND MARKER / CLEARANCE LIGHT**

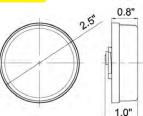


### HE-TR2501

2.5 INCH ROUND MARKER / CLEARANCE LIGHT



NEW!



- 9 LED round marker red
- PL-10 plug on housing
- FMVSS P2 P3
- Grommets included
- PMMA lens and ABS housing
- @12VDC 0.03A



HE-TR2502

2.5 INCH ROUND MARKER / CLEARANCE LIGHT



NEW!

- 9 LED round marker amber
- PL-10 plug on housing
- FMVSS P2 P3

- Grommets included
- PMMA lens and ABS housing
- @12VDC 0.03A



HE-TR2503

2.5 INCH ROUND MARKER / CLEARANCE LIGHT



NEW!

- 9 LED round marker white
- PL-10 plug on housing
- FMVSS P2 P3

- · Grommets included
- PMMA lens and ABS housing
- @12VDC 0.03A



HE-TR2504

2.5 INCH ROUND MARKER / CLEARANCE LIGHT



NEW!

- 9 LED round marker red
- PMMA lens and ABS housing
- @12VDC 0.03A

- PL-10 plug on housing
- FMVSS P2 P3



HE-TR2505

2.5 INCH ROUND MARKER / CLEARANCE LIGHT



NEW!

- 9 LED round marker amber
- Lens and ABS housing
- @12VDC 0.03A

- PL-10 plug on housing
- FMVSS P2 P3



**HE-TR2506** 

2.5 INCH ROUND MARKER / CLEARANCE LIGHT



NEW!

- 9 LED round marker white
- PMMA lens and ABS housing
- @12VDC 0.03A

- PL-10 plug on housing
- FMVSS P2 P3

OPTIONAL PART

FOR 2.5 INCH ROUND MARKER / CLEARANCE LIGHTS PG 11

**HE-TRM105** Rubber Grommet

# **ROUND MARKER / CLEARANCE LIGHT**

### HE-TR2001

# 2 INCH ROUND MARKER / CLEARANCE LIGHT



NEW!

- 6 LED round marker red
- PMMA lens and ABS housing
- @12VDC 0.03A

- PL-10 plug on housing
- FMVSS P2 P3



### **HE-TR2002**

= INCH ROUND MARKER / CLEARANCE LIGHT



NEW!

- 6 LED round marker amber
- PMMA lens and ABS housing
- @12VDC 0.03A

- PL-10 plug on housing
- FMVSS P2 P3



### HE-TR2003

INCH ROUND MARKER / CLEARANCE LIGHT

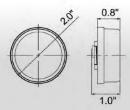


NEW!





- 6 LED round marker white
- PMMA lens and ABS housing
- @12VDC 0.03A



• PL-10 plug on housing

• FMVSS P2 P3

# **OPTIONAL PART**

FOR 2 INCH ROUND MARKER / CLEARANCE LIGHTS PG 11

**HE-TRM106** Rubber Grommet

### **HE-TR7501**

175 INCH ROUND MARKER / CLEARANCE LIGHT





- 3 LED round marker red
- Hardwire connections
- FMVSS P2

- · Sonically sealed, weather-resistant
- Polycarbonate Lens
- @12VDC 0.03A







### **HE-TR7502**

INCH ROUND MARKER / CLEARANCE LIGHT

- · Sonically sealed, weather-resistant Polycarbonate lens
- @12VDC 0.03A

### **HE-TR7503**

• FMVSS P2

1.75 INCH ROUND MARKER / CLEARANCE LIGHT



NEW!



• 3 LED round marker - white

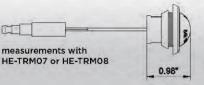
• 3 LED round marker - amber

Hardwire connections

Hardwire connections

• FMVSS P2

- · Sonically sealed, weather-resistant
- Polycarbonate lens
- @12VDC 0.03A





**OPTIONAL PARTS** FOR 0.75 INCH ROUND MARKER / **CLEARANCE LIGHTS** PG 11

HE-TRM107 Stainless Steel Flange HE-TRM108 Rubber Grommet



# TRAILER ACCESSORIES











HE-TRM06

**HE-TRM07** 

**HE-TRM08** 

2 INCH ROUND GROMMET

10 PACK NEW!

2" rubber grommet

• Bulk 10 pack

10 PACK NEW!

.75" stainless steel flange

Bulk 10 pack

175 INCH ROUND STAINLESS FLANGE

0.75 INCH ROUND GROMMET

NEW!

10 PACK

O 88888

• .75" rubber grommet

• Bulk 10 pack

### **FLANGES & GROMMETS**



### **BRAKE LIGHT FLASHERS**



### LED LIGHTBARS

### **DL-DR8**

INCH LED LIGHT BAR

NEW!

- Wattage: 36W
- Raw lumens: 2160LM
- Current consumption @ 13.8V: 2.6A
- IP rating: IP67

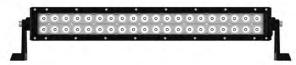


### DL-DR22

**22** INCH LED LIGHT BAR

NEW!

- Wattage: 120W
- Raw Lumens: 7200LM
- Current Consumption @ 13.8V: 8.7A
- IP rating: IP67

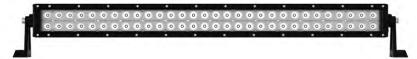


### DL-DR32



NEW!

- Wattage: 180W
- Raw lumens: 10800LM
- Current consumption @ 13.8V: 13.1A
- IP rating: IP67



### **DL-CL1**



NEW!

- Wattage: 36W
- Raw lumens: 2160LM
- Current consumption @ 13.8V: 2.6A
- IP rating: IP67





**COMMON FEATURES** 

**BEAM PATTERN:** COMBO: FLOOD (90) & SPOT (8)

HOUSING MATERIAL: DIE-CAST ALUMINUM

**ELECTRONICS:** INTEGRATED-EPOXY ENCAPSULATED

**OPERATING TEMPERATURE:** -40°C TO +60°C

**INPUT VOLTAGE: 10-30V DC** 

MEMBRANE: MILITARY BREATHER
LENS MATERIAL: POLYCARBONATE

**COLOR:** BLACK

**HARDWARE:** ALUMINUM

**PROTECTION:** REVERSE POLARITY

**COLOR TEMPERATURE: 6000K** 

### LIGHTBAR BRACKETS

**MPS-B01** 

INCH UNIVERSAL LIGHTBAR BRACKET

MPS-B02

22

INCH UNIVERSAL LIGHTBAR BRACKET

MPS-B03



INCH UNIVERSAL LIGHTBAR BRACKET





### **WORK LED LIGHTS**



HE-WL3 4.75 INCH DIAGONAL WORK LIGHT

Wattage: 90W • Raw Lumens: 7200 • Lux @ 10M: 35 • Beam Pattern: 90° Flood Current Consumption @ 13.8V: 4.6A

Modular design allows multiple lights to be connected together to form one long light

4.75"W x 6"H x 4.50"D

HE-WL1

INCH RECTANGLE WORK LIGHT

Wattage: 60W • Raw Lumens: 726 • Lux @ 10M: .1 • Beam Pattern: 120° Flood Current Consumption @ 13.8V: .3 A • Lens Design: Unique Waffle



3.75"W x 3"H x .75"D



3.50"W x 2.50"H x 2.50"D

HE-WL2

3.625x1.75 INCH DUAL WORK LIGHT

Wattage: 10W • Raw Lumens: 800 • Lux @ 10M: 28 • Beam Pattern: 90° Flood Current Consumption @ 13.8V: .4 A

### COMMON FEATURES

**INPUT VOLTAGE: 10-30V DC** 

**COLOR TEMPERATURE:** 6000K

HOUSING MATERIAL: DIE-CAST ALUMINUM

**COLOR:** BLACK

LENS MATERIAL: PC

**MOUNTING BRACKET: DIE-CAST ALUMINUM** 

**HOLE DIMENSIONS:** MOUNTING BOLT DRILL - .25"

**ELECTRONICS:** INTEGRATED-EPOXY ENCAPSULATED

**HARDWARE: STAINLESS 316** 

**IP RATING: IP67** 

**PROTECTION: REVERSE POLARITY** 

# SQUARE DRIVING LED LIGHTS



3.5"W x 3.75"H x 2.375"D

**HE-DL8** 

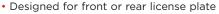
Wattage: 72W • Raw Lumens: 5760 Lux @ 10M: 500 • Beam Pattern: 20° Spot Current Consumption @ 13.8V: 3.2 A

Mounting Bracket: 304L with Stainless Steel Hardware

Operating Temperature: -49°F to 185° F

### LICENSE PLATE MOUNT

### **HE-FLPUS**



• Mounts a cube, work or driving light





HE-CL2S2PK





Wattage: 12W • Raw Lumens: 960 Lux @ 10M: 205 • IP Rating: IP68

Beam Pattern: 5° Spot

Current Consumption @ 13.8V: .9 A Heise HE-DLWH1 dual light wiring harness included

**2 LIGHT PACK** 





### **MONITORS & CAMERAS**



**TE-7VS-4** 

INCH MONITOR WITH QUAD CAMERA INPUT

- 7" color LCD display
- Heavy-duty tilting bracket mount
- Display 1 to 4 cameras simultaneously
- Multiple display layouts
- 4-pin DIN camera input connectors
- Compatible with TE-WTR wireless camera kit
- Includes remote



### **TE-4WCM**

INCH WIRELESS MONITOR WITH QUAD OUTPUT

- 7" color LCD screen
- Built-in 2.4Ghz WiFi system for linking with wireless cameras (sold separately)
- Pairs with up to 4 wireless cameras
- 137m / 450ft unobstructed wireless range
- Display 1 to 4 cameras simultaneously
- Activation trigger for reverse (backup) cam
- 4 channel DVR recording capability
- Max. 128gb microSD card







### TE-CCWRM

### COMMERCIAL WIRELESS PORTABLE CAMERA

- 2.4Ghz wireless camera, 394ft range
- Built-in, strong magnetic base
- Built-in rechargeable lithium battery
- 12 hours of run time (in daylight)
- Overcharge protection
- O lux
- 120° of diagonal view
- FITS: UNIVERSAL







NIGHT VISION





VIEWING ANGLE

### TE-WPC-M

HEAVY DUTY WIRELESS CAMERA + NIGHT VISION

- · High quality metal housing
- Built-in microphone
- 1/3" CMOS camera
- 0 lux night vision / 12 IR LEDs
- 3dB antenna with 120m unobstructed range















NIGHT VISION





### QUICK DISCONNECT CABLES



### **TE-TRBRKT**

PAIR OF TRAILER QUICK DISCONNECT BRACKETS

NEW!

- Mounting bracket for quick disconnects
- Open slot for easy running of cable
- Includes 2 brackets
- Heavy-duty metal





### CAMERAS & CABLES



### TE-CCM

### HEAVY-DUTY NIGHT VISION CAMERA + MICROPHONE

- · High quality metal housing
- Built-in microphone
- 0 lux night vision / 18 IR LEDs
- Extension cable not included











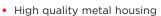








**TE-CCS** HEAVY-DUTY NIGHT VISION SIDE-VIEW CAMERA



- 0 lux night vision / 18 IR LEDs
- Extension cable not included

















NIGHT VISION VIEWING REAR ANGLE MOUNTING

### **HD 4-PIN DIN EXTENSION CABLE** TE-HEX10 · HD extension cable for HD commercial cameras • 4-pin DIN connectors

### TE-HEX20 HD 4-PIN DIN EXTENSION CABLE

• Can be used in place of TE-CEX10

• HD extension cable for HD commercial cameras

• 10m / 32.8ft

- 4-pin DIN connectors
- 20m / 65.6ft
- Can be used in place of TE-CEX20

# HD

### TRAILER WIRING



### **ALL COPPER HOOK-UP WIRE**

12GA 2 PIN/2 PIN RED/BLACK EA/1FT IBTH12 16GA 2 PIN/2 PIN RED/BLACK IBTH16 EA/1FT IBTH18 18GA 2 PIN/2 PIN RED/BLACK EA/1FT



### TRAILER CONNECTORS

BLACK PVC HOUSING WITH COPPER INTERNALS

IBT-E01	6 PIN ROUND/4 WAY FLAT	EA	IBT-E05	7 WAY BLADE TO TRAILER END	EA
IBT-E02	7 PIN ROUND/6 WAY ROUND	EA	IBT-E06	7 WAY BLADE TO VEHICLE END	EA
IBT-E03	7 WAY BLADE/4 WAY FLAT	EA	IBT-E07	7 BLADE 12V LED TESTER	EA
IBT-E04	7 WAY BLADE/5 WAY FLAT	EA	IBT-E08	MOUNTING BRACKET	EA

### TRAILER WIRING



### **ALL COPPER TRAILER WIRING PLUGS**

Connectors that allow the basic hookup of the three lighting functions (running, turn and brake lights) plus one pin is provided for a ground wire (IBTH4P). One pin is available to provide support for another function (IBTH5P).

ІВТН4Р	4-WAY 18GA	5PK
ІВТН5Р	5-WAY 18GA	5PK



### **ALL COPPER TRAILER HARNESS**

IBTH8P72 12GA, 16GA, 8 PIN 72" 5F

For custom harness applications: 12Ga = RD, WT, BK 16Ga = YL, BN, GN, BL, GY

### **ALL COPPER TRAILER WIRE** Wire recommended for RV, boats and utility trailers. **3 CONDUCTOR TRAILER WIRE** 14GA BRN/GRN/YEL 100FT SPL TWBGY14100 TWBGY16100 16GA BRN/GRN/YEL 100FT SPL TWBGY16100 TWBGY18100 18GA BRN/GRN/YEL 100FT SPL **4 CONDUCTOR TRAILER WIRE** 100FT SPL **TWBGYW14100** 14GA BRN/GRN/YEL/WHT **TWBGYW16100** 16GA BRN/GRN/YEL/WHT 100FT SPL TWRGYW16100

100FT SPL

### 2 CONDUCTOR TRAILER WIRE

TWBGYW18100

TWBKRD14100	14GA BLACK/RED	100FT SPL	
TWBKRD16100	16GA BLACK/RED	100FT SPL	TWBKRD16100
TWBKRD18100	18GA BLACK/RED	100FT SPL	TWDRKDIOIOU

# ALL COPPER JACKETED PRIMARY WIRE

Wire recommended for auto/truck/ construction and light marine. Heavy duty PVC outer jacket is abrasion resistant and protects against moisture, oil, acid, and salt.

### **2 CONDUCTOR**

)	JPWBW8100		8GA BLACK/WHITE		EA/100F	T
	JPWBW10100		10GA BLACK/WHITE		EA/100FT	
	JPWBW12100		12GA BLACK/WHITE		EA/100FT	
	JPWBW14100		14GA BLACK/WHITE		EA/100FT	
	JPWBW16100	1	16GA BLACK/WHITE	E	A/100FT	

### **3 CONDUCTOR**

JPWBGW10100	10GA BLK/GRN/WHT	EA/100FT	
JPWBGW12100	12GA BLK/GRN/WHT	EA/100FT	
JPWBGW14100	14GA BLK/GRN/WHT	EA/100FT	J
JPWBGW16100	16GA BLK/GRN/WH	EA/100FT	



JPWBGRW10100	10GA BLK/GRN/RED/WHI	EA/100FT	
JPWBGRW12100	12GA BLK/GRN/RED/WHT	EA/100FT	
JPWBGRW14100	14GA BLK/GRN/RED/WHT	EA/100FT	
JPWBGRW16100	16GA BLK/GRN/RED/WHT	EA/100FT	



COPPER JACKETEI	b
PRIMARY WIRE	

PRIMA	RY WIRE		
JPW6100	6 X 14GA	100FT SPL	JPW6100
JPW7100	4 X 14GA, 3 X 12GA	100FT SPL	JPW7100

### **BULK TRAILER WIRE COLORS**

18GA BRN/GRN/YEL/WHT

GPT is designed for electrical usage in fleet vehicles. PVC coated high temp rated.

US18500F	2	18GA US GPT WIRE RED		EA/500	OFT
US18500B	L	18GA US GPT WIRE BLUE		EA/500	FT
US18500BR		18GA US GPT WIRE BROW	N /	EA/500F	ī
US18500GR		18GA US GPT WIRE GREEN		EA/500FT	
US185000R	1	8GA US GPT WIRE ORANGE		EA/500FT	
US18500PL	18	GA US GPT WIRE PURPLE	E	A/500FT	
US18500WT	180	GA US GPT WIRE WHITE	EA	/500FT	
US18500YL	18G.	A US GPT WIRE YEL	EA/	/500FT	

### MAINTENANCE PRODUCTS

EACH



### **DIELECTRIC GREASE**

IBO5113 DI-ELECTRIC GREASE 3.3 OZ

### **HEAT SHRINK TERMINAL KIT**

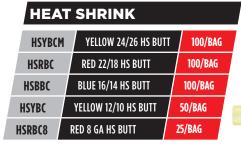
• Assorted heat shrink butts, push ons, rings, and spades

IBK-HS120

CONNECTOR KIT - 120 PIECE (HEAT SHRINK) EACH



### **BUTT CONNECTORS**





	The second secon		
	SHSBBC	SHSRBC	
HEA'	T SHRINK WITH S	OLDER	
SHSBBC	HS BLUE BUTT CONN W/SOLDI	ER 16/14 GA	10 PK
SHSRBC	HS RED BUTT CONNECTOR W/S	OLDER 22/18 GA	10 PK
SHSWBC	HS WHITE BUTT CONNECTOR W/	SOLDER 26/24 GA	0 PK
SHSYBC	HS YELLOW BUTT CONNECTOR W/	/SOLDER 12/10 GA 10	PK

### RING TERMINALS







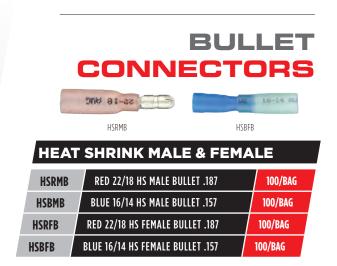
### **HEAT SHRINK RING TERMINALS**

HSRRT8	RED 22/18 #8 HS RING	100/BAG	HSBRT8	BLUE 16/14 #8 HS RING	100/BA	G HSYRT8	YELLOW 12/10 #8 HS RING	50/BAG
HSRRT10	RED 22/18 #10 HS RING	100/BAG	HSBRT10	BLUE 16/14 #10 HS RING	100/BAG	HSYRT10	YELLOW 12/10 #10 HS RING	50/BAG
HSRRT14	RED 22/18 14" HS RING	100/BAG	HSBRT14	BLUE 16/14 1/4" HS RING	100/BAG	HSYRT14	YELLOW 12/10 1/4" HS RING	50/BAG
HSRRT516	RED 22/18 516" HS RING	100/BAG	HSBRT516	BLUE 16/14 5/16" HS RING	100/BAG	HSYRT516	YELLOW 12/10 5/16" HS RING	50/BAG
HSRRT38	RED 22/18 38" HS RING	100/BAG	HSBRT38	BLUE 16/14 3/8" HS RING	100/BAG	HSYRT38	YELLOW 12/10 3/8" HS RING	50/BAG
						HSYRT12	YELLOW 12/10 1/2" HS RING	50/BAG

### SPADE TERMINALS



	HEAT SHRINK SPADE TERMINALS						
	HSBVLST6	100/BAG					
	HSBVST8 BLUE 16/14 HS #8 SPADE		100/BAG				
	HSBVST10	BLUE 16/14 HS #10 SPADE	100/BAG				
	HSRVST8	RED 22/18 HS #8 SPADE	100/BAG				
ı	HSRVST10	100/BAG					



### QUICK DISCONNECT



HSFYD





HSBMFI	

	HEA					
	FI=FUL					
	HSRMFI	HSRMFI RED 22/10 .250 HS MALE FI QD				
	HSBMFI	BLUE 16/14 .250 HS MALE FI QD	100/BAG			
	HSYMFI	YELLOW 12/10 .250 HS MALE FI QD	50/BAG			
	HSRMD	RED 22/18 .250 HS M QD	100/BAG			
	HSMBD	BLUE 16/14 .250 HS M QD	100/BAG			
ł	HSMYD	YELLOW 12/10 .250 HS M QD	50/BAG			

### **HEAT SHRINK FEMALE** FI=FULLY INSULATED RED 22/10 .250 HS FEMALE FI QD 100/BAG HSRFFI **HSBFFI** BLUE 16/14 .250 HS FEMALE FI QD 100/BAG **HSYFFI** YELLOW 12/10 .250 HS FEMALE FI QD 50/BAG **HSRFD** RED 22/18 .250 HS F QD 100/BAG **HSFBD** BLUE 16/14 .250 HS F QD 100/BAG **HSFYD** YELLOW 12/10 .250 HS F QD 50/BAG







### **RUBBER GROMMETS**

RG18	RUBBER GROMMETS 1/8" ID	100/BA	G	
RG316	RUBBER GROMMETS 3/16" ID		100/BAG	i
RG14	RUBBER GROMMETS 1/4" ID		100/BAG	
RG516	RUBBER GROMMETS 5/16" ID		100/BAG	
RG38 RUBBER GROMMETS 3/8" ID		1	00/BAG	
RG12	RUBBER GROMMETS 1/2" ID	10	OO/BAG	1

# **GROMMETS**

LONG BARREL GROMMETS							
LSB8	8 GAUGE LONG BARREL GROMMET .26" ID	25/BAG					
LSB4	4 GAUGE LONG BARREL GROMMET .40" ID	25/BAG					
LSB1	25/BAG						









### 3M ELECTRICAL TAPE

**SUPER33-10** 

SUPER 33+ ELECTRICAL TAPE 3/4" X 52'

10 PK

### **EXTERIOR HARNESSING TAPE**

tesa 3/8" X 25M EXTERIOR HARNESS TAPE **16/SLV** IB51026 IB51036 tesa OEM HARNESSING TAPE EXTERIOR 3/4" X 82' **16/SLV** 





### CABLE TUBING / CLAMPS / MOUNTS / TIES



### **WIRE LOOM INSTALL TOOL**

**SLT-08** WIRE LOOM INSTALL TOOL - 1/4 - 7/16 INCH **EACH** WIRE LOOM INSTALL TOOL - 1/2 - 5/8 INCH SLT-15 EACH



### **SPLIT LOOM TUBING - BLACK**

Polyethylene 200 degree LOOM dispenser boxed with Metra label

SLT145	SPLIT LOOM TUBING 200 DEG 1/4" DISPENSER BOXED	EACH	
SLT385	SPLIT LOOM TUBING 200 DEG 3/8" DISPENSER BOXED	EACH	SLT1
SLT122	SPLIT LOOM TUBING 200 DEG 1/2" DISPENSER BOXED	EACH	
SLT1	SPLIT LOOM TUBING 200 DEG 1" DISPENSER BOXED	EACH	

# **CABLE CLAMPS**

BCC18	CABLE CLAMPS 1/8" BLACK	100/BAG
BCC316	CABLE CLAMPS 3/16" BLACK	100/BAG
BCC14	CABLE CLAMPS 1/4" BLACK	100/BAG
BCC516	CABLE CLAMPS 5/16" BLACK	100/BAG
BCC38	CABLE CLAMPS 3/8" BLACK	100/BAG
BCC12	CABLE CLAMPS 1/2" BLACK	100/BAG
BCC34	CABLE CLAMPS 3/4" BLACK	100/BAG
BCC1	CABLE CLAMPS 1" BLACK	100/BAG

### **MOUNTING HOLE CABLE TIES**

BMCT6	6" SCREW MOUNT BLACK - 40 LB.	100/BAG
BMCT7	7.5" SCREW MOUNT BLACK - 50 LB.	100/BAG
BMCT11	11" SCREW MOUNT BLACK - 50 LB.	100/BAG



### **BLACK CABLE TIES**

BCT4-1	4" BLACK CABLE TIES - 18 LB.	1000/BAG
BCT6-1	6" BLACK CABLE TIES - 30 LB.	1000/BAG
BCT8-1	8" BLACK CABLE TIES - 40 LB.	1000/BAG
BCT18	18" BLACK CABLE TIES - 50 LB.	100/BAG



# STORAGE CONTAINER

**IB12STORAGE** 

12 SLOT STORAGE CONTAINER

**EACH** 

### **FUSE & HEAT SHRINK KITS**

### **FUSE BULK KITS**

**IBATMLPKIT** 

ATMLP FUSE KIT / ASSORTED AMLP **FUSES IN RETAIL STORAGE KIT** 

EACH

IBATCKIT

ATC FUSE ASSORTED / ATC **FUSES IN RETAIL STORAGE KIT** 

**IBATMKIT** 

ATC FUSE ASSORTED / ATM **FUSES IN RETAIL STORAGE KIT**  EACH









**3MHSKIT** 

HEAT SHRINK KIT

EACH

### **CLIPS & SCREWS**

STAINLESS						
	FW188 FW316S		#10 18-8 S.S. FLAT WASHER		10/BAG	G
			#10 316 S.S. FLAT WASHER		10/BAG	
	NTSC1024		#10-24 18-8 S.S. HX NYLON INSER	r	100/BA	G
	POHSC10134		#10 X 1-3/4 18-8 S.S. PHIL OVAL		100/BAG	
	POHSC102		#10 X 2 18-8 S.S. PHIL OVAL		100/BAG	
	POHSC834		#8 X 3/4 18-8 S.S. PH OVAL		100/BAG	
	PPHSC1024114		#10 X 24 1-1/4" PHIL PAN		100/BAG	
	PPHSC141		#14 X 1 18-8 S.S. PHIL PAN		100/BAG	
	PPHSS101	;	#10 X 1 18-8 S.S. PH PAN	1	00/BAG	
I	PPHSS81	#	8 X 1 18-8 S.S. PH PAN	1	00/BAG	

	WIRE (	CLIPS		AN CO
	Screw Mo	unt		
	IBCLIP8	8AWG WIRE CLIPS	4/BAG	
	IBCLIP10	10AWG WIRE CLIPS	4/BAG	
W188	FW316SC			OHSC834

### **GROUNDING KIT + KIT RE-ORDER PARTS**









**HIGH SPEED DRILL BIT** 



EACH

50/PK





STAINLESS STEEL WIRES

**CUT DOWN TO BARE** 

METAL QUICKLY



### **CUTTING BOLTS**

**BRUSH TIP** 

**PZGBRUSH** 

**PZGBOLT** 

ZINC ANODIZED THREAD



**ANODIZED FLANGED PZGLNUT** SERRATED

50/PK



**PROFESSIONAL HIGH** 

**CURRENT KIT** 

### **NUT DRIVER**

**GROUNDING KIT** Contains enough parts for 50 grounds. Replacement parts can be

**PZGDRIVER** 

purchased.

**PZGGRKT** 

MAGNETIZED NUT SETTER 5/16"BOLT 1/2" DRIVER

EACH

EACH



### **ELECTRICAL GEL**

**PZGGEL** 

ANTI-CORROSION ELECTRICAL **CONNECTION GEL** 

EACH



### **SAFETY GLASSES**

**PZGGLASSES** 

**CLEAR SAFETY** GLASSES

EACH

### **SOLDER & WORKLIGHTS**





### **SOLDER KIT**

IBP2KC **WELLER PROFESSIONAL** EACH SELF-IGNITING CORDLESS BUTANE

A lightweight, compact cordless butane soldering and hot air tool. Fast heat-up for high productivity, melts solder in less than 40 seconds. 25-75 watts.

PT1	.031 SINGLE FLAT TIP (FOR USE WITH THE IBP2KC)	EACH
PPT2	.094 SINGLE FLAT TIP (FOR USE WITH THE IBP2KC)	EACH
PPT5	.031 DOUBLE FLAT TIP (FOR USE WITH THE IBP2KC)	EACH
PPT6	.094 DOUBLE FLAT TIP (FOR USE WITH THE IBP2KC)	EACH



IBPSI100K **WELLER SUPER PRO** SELF-IGNITING BUTANE **SOLDERING IRON KIT** 

Professional quality, features "auto switch" safety shut-off and iron plated tip. Provides up to 125 watts of power.

### **SOLDER** .040 ROSEN CORE SOLDER EACH SDR1 1 LB SPOOL 60/40 KESTER .062 ROSEN CORE SOLDER SDR14 **EACH** .25 LB SPOOL 60/40 .040 ROSEN CORE SOLDER **EACH ESDR-1** 1LB SPOOL 60/40 ECONOMY ASDR1 1LB .062 ALUMINUM SOLDER EACH **GFLUX2** 2 OZ. GOLDEN FLUX FOR ASDR1 EACH ONLY



### **SOLDERING STATION**

IBWLC100

**WELLER 40 WATT** 

Variable power control produces 5-40 watts. Quality, lightweight pencil iron, natural sponge tip cleaning pad. Includes ST3 iron plated copper tip.

**IBST3** 

EACH

REPLACEMENT TIP

EACH



SDR1

### **WORKLIGHTS**

60 LED W/50FT 18/2 CORD REEL **SL864** 

The Bayco Hanging Worklight on 50ft. retractable reel is 60 LEDs on the body of a hanging worklight, giving you the ability to keep working longer. 60 LED floodlight creates 120 lumens. Dual-position magnet hook hangs horizontally and vertically.

SL2125	60 LED W/25FT 18/2 CORD	EACH
SLR2166	66 LED RECHARGEABLE SPOT WITH MAG HOOK	EACH



### **KNIFE CUTTING & SCISSORS & SCRAPER**



### **UTILITY KNIFE**

OLFBNL RATCHET LOCK, 18MM CUTTER EACH

Heavy-duty cutter features a comfortably contoured ABS plastic handle with a ratchet wheel blade locking mechanism. Includes LB Blade.

OLFLB10B 18MM, 8 SEGMENTS PER STRIP 10/PK

Replacement blade for OLFBNL

OLFLFB 18MM, SNAP-OFF SPEED BLADE 10/PK

Features a special enhanced coating. Blade cuts faster and resists build-up. Excellent for cutting tough materials like thick corregated, Gator Board, Corplast, wallboard, rubber and more.



### **SLIDE LOCK UTILITY KNIFE**

OLFAA1 SLIDE LOCK UTILITY KNIFE EACH

9mm cutter features an ABS non-slip handle with a full length stainless steel blade channel. Auto-locking blade slider has micro, 26 blade stop positions. Includes a pocket-clip/blade snapper which firmly attaches to the cutter.

OLFAB10B 9MM, 13 SEGMENTS PER STRIP 10/PK

OLFAB5OB 9MM, 13 SEGMENTS PER STRIP 50/PK

Replacement blade for OLFAA1

Replacement blade for OLFAA1



### OLFA

### **TOP SHEET CUTTER**

OLFTS1 TOP SHEET CUTTER EACH

Its unique design lets you cut the top layer while preserving those below. Can use it on cardstock, thin films, plastic sheeting, tape and more.

OLFTSB1 TOP SHEET CUTTER BLADE 5/PK

Replacement blade for OLFTS1



### **ECONOMY CUTTER**

114-58	KNIFE 13PT SNAP BLADE	EACH
114-62	REPLACEMENT BLADES	10/PK

### FA

### **SNAP-OFF GRAPHICS KNIFE**

OLFSAC1 STAINLESS STEEL SNAP-OFF
GRAPHICS KNIFE WITH 30
DEGREE ANGLE

The acute 30° angle easily cuts cardboard, plastics, Coroplast™, foam board, Gator Board and more. It features an auto-lock. Pocket clip/blade snapper for convenience.

OLFA1160B 9MM, 7 SEGMENTS PER STRIP 10/PK

Replacement blade for OLFSAC1

### OLFA Ter sine sing year to pass

### **CUSHION GRIP KNIFE**

OLFAK4 INCLUDES 2 PRECISION ART BLADES EACH

This versatile knife features an acetone resistant, anti-slip cushion grip handle. The bottom is weighted slightly for better balance and stability in cutting. The anti-roll device offers safety and its quick spin, easy blade change.

OLFKB4S #11 PRECISION BLADE

Replacement blade for OLFAK4.



### STANDARD DUTY CUTTER

OLPA2	CUTTER	EACH

Rubber grip insert, positive side lock

OL9281	ABS STAINLESS BLADES	10/PK
OL9282	ABS STAINLESS BLADES	50/PK



### **RAZOR BLADES**

IBBLADE SINGLE EDGE STEEL-BACK #12 100/PK



### **DISPENSER PACK**

120-01 UTILITY REPLACEMENT BLADES



O/L/F/A/

### STAINLESS STEEL KNIFE

OLFA KNIFE EACH

Auto locking blade, stainless steel handle and built-in safety blade stripper

0L9281	ABS STAINLESS BLADES	10/PK
019282	ABS STAINLESS BLADES	50/PK



**ART KNIFE** 

OLFAK5 ART KNIFE/WEEDING PICK EACH

30 included



### **MULTI-PURPOSE SCRAPER**

OLFSCRL 21/3"

Handy scraper features high-quality 21/3" stainless steel blades and strong, acetone resistant handles. Stainless steel blades offer better protection against rusting for longer use.

OLGSB-1S	MULTI-GRIP 4-3/4"	EACH
OLFSCRL	REPLACEMENT BLADE FOR OLGSB-1S	EACH



### **EDGE SCISSORS**

OLFSCS2 7" STAINLESS STEEL, SERRATED

These heavy-duty scissors easily cut the toughest industrial materials, including polymers, wire, Kevlar®, vinyl, rubber, fabric, aircraft composites and other materials.

OLFSCS4	5" PRECISION, SMOOTH	EACI
---------	----------------------	------

These precision scissors are ideal for fine, intricate cutting on graphics, vinyl, film, leather, Kevlar™ cloth, polystyrene and more. Industrial strength Blades are made of stainless steel and fully extend into the handle.





**EACH** 

100/PK

### HAND TOOLS





Removes door panel fasteners even in tight spaces. The bent handle design allows use where space is limited and provides



### **DOOR PANEL REMOVER**

IB35350

**EACH** 

**DOOR UPHOLSTERY REMOVER** 

IB35400

**EACH** 

For plastic fasteners. Rugged tool with a large, comfortable

extra prying force.





### **CRIMPING/CUTTING TOOL**

IBJ1005

JOURNEYMAN

EACH

Soft handle material on outer surface and hard, black material on inner surface for comfort & durability. Use for insulated and uninsulated terminals & connectors. Accommodates wire from 10-22 awg, wire cutter in nose.

Ideal for marking most metal and softer



IB31800

**SCRIBE** 

materials.





### CRIMPING/CUTTING TOOL

IB1006

NON-INSULATED TERMINALS CONNECTORS 10-22 AWG

Three different cutting blades; anvil, copper, curved and steel. Cleanly shears 6-32 & 8-32 screws.



### **HAMMER CRIMPER**

**IBHDCHRMP** 

LARGE GAUGE

**EACH** 

EACH

# CRIMPING/CUTTING TOOL

IB1005

INSULATED AND NON-INSULATED TERMINALS AND CONNECTORS 10-22 AWG

**EACH** 

Accommodates wire from no. 10 to 22 awg. Specially hardened wire cutter in nose. Tapered nose design for working in tight spaces.





IB31840

EACH

Ideal for marking most metal and softer materials. Heat treated carbon steel point and surfaces.

"O" RING AND SEAL PICK

### **WIRE PULLER**

MEG20

**EACH** 

Helps pull and/or push cable and wire in any difficult area. Bullet shaped tip for penetrating rubber boots, grommets and wire loom wraps. 24" overall length.

### **CRIMPING TOOL**

IB2006 6" AWG TO 4/0 COMPOUND

All-in-one integral crimp nest with no removable parts or rotating dies. Adjustable screw allows user to control crimp depth.



### **CUTTERS & WIRE STRIPPERS & CRIMPERS & SAW BLADES**



### **CABLE CUTTER**

IB63020 KURVE MULTI

EACH

Three different cutting blades; anvil, copper, curved and steel. Cleanly shears 6-32 & 8-32 screws. Double-dipped comfort grips with curved handles.



### **WIRE STRIPPER**

IB1011 MULTI PURPOSE

EACH

Strips 10-20 awg wire, bend shapes, pulls and loops wire, coil springs.

### **ECONOMY**



### 10" MULTI CRIMPER/CUTTER

**TMT10** 

EACH

Patented 3-in-1 quality crimping tool designed for quick splice T-tap clipping, wire cutting and connector crimping.



### **CABLE CUTTER**

TCT8 CUTS UP TO 4 GAUGE EACH



### **WIRE STRIPPER**

IB1004

EACH

**EACH** 

Cuts, strips and loops 12-26 solid and stranded wire. Adjustable slide stop with set screw for repeat stripping work.



### **DIAGONAL CUTTERS**

IBD275-5

275-5 MIDGET LIGHTWEIGHT

5" Lightweight. Shears wire up to 14 awg with flush cutting action, compact head, steel hold-open spring, plastic-covered handles.



### **8" T-TAP CRIMPER/CUTTER**

**TTT08** 

EACH

Patented 2-in-1 wire quick splice T-tap clipper and wire cutter. Hot forged and specially heat treated alloy for extra durability.



### **5" STRIPPER AND CUTTER**

HW-9006

EACH

5" made of carbon steel and hardened with black-oxide finish.



### **WIRE STRIPPER CUTTER**

IB11045

EACH

Strips 10-18 awg solid wire, easy to read wire gauge markings and coil spring.



### **DIAGONAL CUTTERS**

IBD209-4 MIDGET POINTED NOSE (4")

EACH

Sharp pointed nose for precise tip cutting and trimming printed circuit hourds

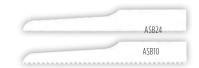


### CRIMPER

HW-9013

EACH

For stripping wires from 22-12 awg. Crimper made of carbon steel and hardened. Crimps red 22-18 awg, blue 16-14 awg, yellow 12-10 awg.



AIR SAW BLADES		
ABS24	24TPI 1/2"	EACH
ABS24-5	24TPI 1/2"	5/PK
ASB18-5	18TPI 1/2"	5/PK
ASB10-5	10TPI 1/2"	5/PK

Bi-metal blades bend and resist breaking. High speed steel teeth provide long-lasting cutting edge



### **BITS & HAND TOOLS**







### **UNIBIT**

13 INCREMENTS FRACTIONAL: IB59001 1/8"-1/2"

Double fluted design eliminates

skidding and makes for easier

EACH

**UNIBIT** 

9 INCREMENTS FRACTIONAL: **IB59003** 1/4"-3/4"

Double fluted design eliminates

resharpening. Also features laser

etched hole sizes, anti-skid tip and

drill points so there is no pilot hole

needed. Works with most metals.

skidding and makes for easier

**BIT SET** 

EACH

IB32526 32 PIECE STANDARD TIP BIT SET

Durable PVC black block allows for easy storage of standard bits. Block slides over most screwdriver shafts for easy bit access and storage. Industrial strength, heat-treated steel bits for long-lasting use.

resharpening. Also features laser etched hole sizes, anti-skid tip and drill points so there is no pilot hole needed. Works with most metals.

**SKEWDRIVER** 



SKEWDRIVER







### **SKEWDRIVER PRO®**

HW-9001

EACH

The Skewdriver® is a bevel gear offset screwdriver that uses the rotary handle action of a regular screwdriver to access awkward and hard to reach places. The sturdy removable hollow handle allows use with any cord free 1/4" drill and acts as a handy storage for bits.

### **SKEWDRIVER PRO® KIT**

SPK4040

The Skewdriver® Pro SPK4040 kit features an offset bit driver, a rightangle tool that's perfect for removing the screws that secure some dash speaker grilles, getting to screws in hard-to-reach trim pieces, or working in tight quarters anywhere in your car or home.

### **BEVEL-GEAR DRIVER**

P9801H

SKEWDRIVER

Die cast Skewdriver® Pro offset bevel gear driver, with NEW SUPER GEARS , 3 times stronger than previous models, has stabilizer lock screw, ANSI impact ready input shaft, black chrome finish.

### **SKEWDRIVER**





### **OFFSET HI-SPEED HEAD**

HD-105

**HEAVY DUTY 105° OFFSET HI-SPEED HEAD** 

EACH

Made for heavy-duty power units. Rated at more than 500 in/lbs of torque/2000rpm. Lets you get your power unit into tight spots with drills, spade drills, grinders, buffers, nuts and screws.

### **GEAR DRIVER**

RGS-5299 OFFSET GEAR DRIVER

EACH

### **WRENCH SET**

PBS-1438 3/8" AND 1/4" WRENCH SET

PBX 1400 Powerbox accessory with 7 piece English and Metric sockets.

### TESTERS & GENERATORS & PROBES & MULTIMETERS







### **HANDY CIRCUIT TESTER**

IB25600

Hooded probe protects your fingers and automatically centers the wires. Small size allows easy use even in the tightest places. Works up to 28 volts.

### **CIRCUIT TESTER**

IB27450 COMPUTER SAFE

Safe for use on 12 volt automotive computer circuits. Tool draws less than 21 M.A. at 12 volts D.C. With an operating range of 3-12 Volts.

- Red glow positive
- Green glow negative

TEST LIGHT / CIRCUIT TESTER

3410

Ergonomic grip design with 6-foot test leads. Transparent handle shows bright LEDs to identify connections:

Green = Ground Present Red = Voltage Present





76600 HI-VIS VOLTPRO CIRCUIT TESTER **EACH** 

Indicates power and grounds. Test the circuit's ability to deliver current and identify loose, corroded or broken wires. Capture intermittent spikes or drops in voltage. Take voltage snapshots in any mode, any time.

- Dynamic voltage drop testing
- Computer safe
- Power and ground LED indicators
   Voltage snapshot
- Min/max glitch capture





### **AUTO-RANGING DMM**

EACH

3320

10 Meg0hm/UL

**EACH** 

Auto-Ranging™ scales eliminate the need to dial in the correct range when making electronic measurements. 10 MegOhm input impedance for safe automotive and household uses. Large digital display. Single-setting resistance function for voltage (AC & DC). Color-coded LEDs display battery quick check. Includes attachable test leads, holders and stand.





### **MANUAL MULTIMETERS**

MM300

MANUAL RANGING

- Measures up to 600V AC/DC voltage, 10A AC/DC current and 2Mff resistance
- Tests batteries, diodes and continuity
- CAT III 600V safety rating





### **AUTO MULTIMETERS**

MM400

AUTO RANGING

EACH

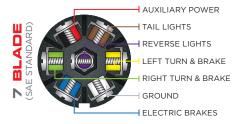
- Measures up to 600V AC/DC voltage, 10A AC/DC current and 40 Mff resistance
- Measures capacitance, temperature, frequency, dutycycle, and test diodes and continuity
- CAT III 600V safety rating



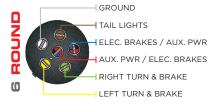


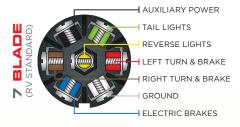
### TRAILER WIRING REFERENCE GUIDE

### **VEHICLE-SIDE CONNECTIONS**











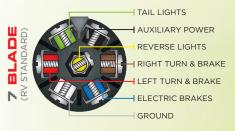


### TRAILER-SIDE CONNECTIONS





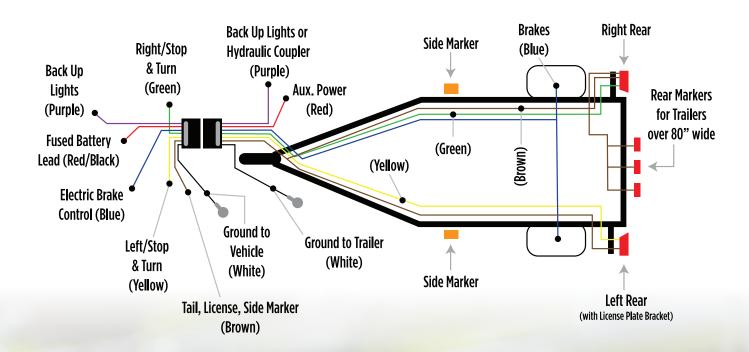








### TRAILER WIRING REFERENCE GUIDE





### **TERMS & CONDITIONS**

TERMS

Net 30 days from date of invoice on approved accounts. Minimum order: \$50 per invoice, orders less than required minimum incur a \$20 service charge.

**FREIGHT** 

Freight on board (F.O.B.) from point of shipment.

In order to establish a credit line with Metra, an application for credit must be submitted listing a minimum of two (2) trade references and a bank with their addresses and phone numbers and must be signed by a principal or authorized officer of the company. A credit line will be established by our credit Manager and must be maintained in a current status according to our terms (net 30 days). Credit not established or revoked requires remittance with order. Will be placed on any amounts that are 30 days or more past due.

### **RESALE TAX EXEMPTION CERTIFICATE**

California customers must provide a valid resale card before an order can be placed.

CLAIMS

Title and risk of loss passes to buyer at F.O.B. Shipping point and all claims must be filed with Carrier. Any discrepancies must be reported to Metra within ten (10) days of receipt of shipment.

All sales are final. No returns or exchanges will be allowed without prior written authorization from Metra. All returns are subject to a 20% handling charge, must be in a saleable condition, and must have been purchased within sixty (60) days of return request. No stock balancing permitted. Copies of invoices must be mailed in advance for any return authorization (R.A.).

### WARRANTY

The warranty covers defects in the original material and workmanship except when:

- Installed by anyone who is NOT an authorized Metra Electronics® retailer, dealer or distributor.
- Any product is purchased from an unauthorized retailer, dealer or distributor.
- Any product that has had it serial number and or model number is altered, damaged, removed or replicated.

The warranty will NOT be honored if any damage or malfunctions occur due to the following scenarios:

- When the defect or damage results from shipping,
- Installation or removal of the product.
- During repair or attempt to repair without authorization from Metra Electronics.
- Other causes not related to an actual manufacturing defect.
- Any cosmetic damage that occurs to the product during normal use i.e. normal wear and tear.
- Any consumable components on the product such as a fuse or battery.
- Any accidents, acts of nature, misuse, abuse, neglect, unauthorized product modifications, or failure to follow product owner's manual instructions during installation and use.

Metra Electronics® the manufacturer of Heise LED Lighting Systems® warrants this products only to the original purchaser.

BACK ORDERS

If an item is temporarily unavailable for immediate shipment, we will back-order the item and ship as soon as possible from the nearest available warehouse, unless otherwise instructed.

Metra reserves the right to make changes in or deletions of products or prices without prior notice.

\*Metra will not assume any responsibility for damages to person or property due to incorrect interpretation of the material in this publication. Metra is not responsible for typographical or printing errors. Reproductions of editorial or pictorial content is strictly prohibited without prior consent from Metra.

### VISA, MASTERCARD, DISCOVER & AMERICAN EXPRESS ACCEPTED







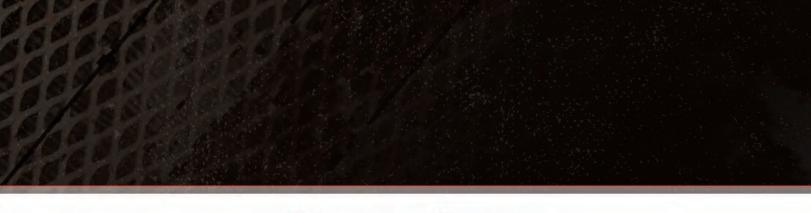






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**WARNING:** This catalog does not advise whether a State of California Proposition 65 warning is required for a particular item of merchandise. To learn whether a particular item of merchandise requires a California Proposition 65 warning, please be sure to look up and read the particular merchandise's listing on Metra's website www.HeiseLED.com, as well as read the particular merchandise's packaging. When a California Proposition 65 warning is present on Metra's website listing for the particular merchandise, or on the particular merchandise's packaging, a compliant California Proposition 65 warning is to be provided to the purchasing California consumer prior to the sale of the particular merchandise.





CORPORATE HEADQUARTERS
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### WAREHOUSE OPERATIONS

Daytona Beach, FL Dallas, TX Freehold, NJ Lexington, KY Fresno, CA Long Beach, CA

Taipei, Taiwan R.O.C. • Hong Kong



### **HE-TRAILER20**



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