

PROFESSIONAL TIRE REPAIR TPMS & SUPPLIES



Makers of







U.S. Plant and International Headquarters

100 Enterprise Drive

Phone (740) 498-8324 | 800-438-3302 Fax (740) 498-8325 email: info@31inc.com www.31inc.com

31 Incorporated was founded in 1961 by Bob Cornell, a former employee of Tech International. In 1985 Bob Hendry and Chuck Muhs joined the company to run sales and operations. In 1987 Bob and Chuck acquired the company from Mr. Cornell when he was ready to retire from the business. From humble beginnings, 31 Inc. has grown to become well-known internationally as a leading manufacturer of professional tire repair, TPMS, and supplies. Primary manufacturing is still operated in rural Newcomerstown, OH USA, as well as a secondary manufacturing operation in China, Zhejiang, Shangyu city.

OUR CORE VALUES

WE MANUFACTURE TIRE REPAIR MATERIALS AS IF IT IS DESTINED FOR OUR OWN FAMILY VEHICLE

31 Inc., having a quality management system certified to ISO 9001:2008 with design, is dedicated to manufacturing high-quality tire repair materials and supplies. From the raw material stage to finished product, production is monitored and examined to ensure we meet or exceed rigorous quality standards. We also utilize third party standards and testing companies to qualify the products we make.

WORLD CLASS CUSTOMER SERVICE WITH A PERSONAL TOUCH

There is no phone answering system at 31 Inc. Your call is always answered with a friendly voice on the other end. We take personal ownership and pride in being available to assist our customers all around the world.

TRAINING AND EDUCATION IS PARAMOUNT TO OUR SALES PROGRAM

31 Inc. is committed to training and educating our customers and industry personnel on the proper application of our tire repair materials, TPMS, and supplies in accordance with industry standard procedures. We not only conduct on-site hands-on training, but also make available detailed repair videos, web support, and other forms of training resources.

HUMBLE SERVANT FOR THE INDUSTRY

The folks at 31 lnc. are happy to help all those with stake in our industry. We actively participate in the Tire Industry Association and Tread Rubber and Repair Materials Group (TIA & TRMG).

31 Inc. - At Your Service!

PROFESSIONAL TIRE REPAIR, TPMS & SUPPLIES



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PROFESSIONALTIRE REPAIR SYSTEMS

31 Inc. offers **complete startup systems** for passenger and light truck tire puncture repair. Each system includes the recommended mix of tire repair materials, chemicals, and tools for the job. Precise step-by-step, industry approved guidelines are included as well in each of these manageable and well organized systems.

31 Inc. helps take the guesswork out of your tire service program.

Safe & Effective

It's easy with XtraSeal tire repair systems.

See Page 137 for Complete Contents Listing of Tire Repair Systems

14-603 Tire Service Set with Wall Cabinet

- Deluxe wall-mount cabinet
- Loaded to complete over 110 industry standard puncture repairs
- All the tools plus XLIGHT, air powered vacuum, carbide cutters, and more
- Preloaded 1-box shipping unit

14-604 Wall Cabinet Assortment

- Deluxe wall-mount cabinet
- Loaded to complete over 130 industry standard puncture repairs
- All the tools including a reversible drill, XLIGHT, air powered vacuum, carbide cutters, and more





14-613 Rolling Cabinet Assortment

- Loaded to complete over 110 industry standard puncture repairs
- All the tools including an air powered vacuum, carbide cutters and more
- Heavy duty service cart
- 500 lb. load capacity
- Extending lid with automatic gas shocks
- Ball bearing cabinet glides
- 40" tall 39" wide 22" deep



Shown Here

14-652 **Tire Repair Materials Toolbox**

- Tire repair materials and chemicals for industry standard puncture repair
- Organized in a large rugged toolbox
- Includes puncture repair procedures guide and poster



14-651 **Quilled Unit Puncture Repair Toolbox**

- Complete set designed to utilize the popular quilled unit series of 1-piece repair
- Includes the tire repair materials, chemicals, tools and procedures
- Organized in a large rugged toolbox



Complete Contents Listing of Tire Repair Systems

14-653 **Lead-Wire Puncture Repair Toolbox**

• Complete set includes all the materials, chemicals and tools for industry standard puncture repair

• Also includes buffer, air powered vacuum, carbide cutters, and XLIGHT

• Organized in a large rugged toolbox

• Includes puncture repair procedures guide and poster



PUNCTURE REPAIR

PUNCTURE REPAIR | REPAIR UNITS



COMBINATION REPAIR UNITS

Combination repair units fulfill the industry recommended repair requirements of "filling the injury" and "patching the innerliner" for a one-piece repair system. Use when the injury angle is less than 25 degrees. Refer to page 125 for repair limitations and follow the installation procedures on page 126.

Lead-Wire Combination Units

- For use in radial and bias ply tires
- Designed for chemical or heat vulcanization
- Patch portion has gray vulcanizing gum with blue poly backing
- Stem portion is dip coated or wrapped with premium vulcanizing gum

LEAD-WIRE COMBINATION UNITS - DIPPED STEM						
Part Number	Description	Injury Size	Box Qty	Case Qty	Carbide	
13-670	1" (27mm)	1/8" (3mm)	20	12	14-340	
13-672	1 5/8" (42mm)	3/16" (4.5mm)	24	10	14-345	
13-673	2 1/8" (55mm)	1/4" (6mm)	24	10	14-346	
13-674	2 1/8" (55mm)	5/16" (8mm)	24	10	14-347	
13-675	2 1/8" (55mm)	3/8" (10mm)	16	10	14-348	

LEAD-WIRE COMBINATION UNITS – WRAPPED STEM					
Part Number	Description	Injury Size	Box Qty	Case Qty	Carbide
13-672C	1 5/8" (42mm)	3/16" (4.5mm)	24	10	14-345
13-673C	2 1/8" (55mm)	1/4" (6mm)	24	10	14-346
13-674C	2 1/8" (55mm)	5/16" (8mm)	24	10	14-347
13-675C	2 1/8" (55mm)	3/8" (10mm)	16	10	14-348

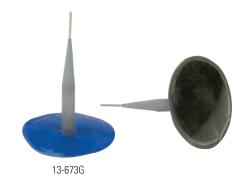


1-PIECE REPAIR

Gray Gum Lead-Wire Combination Units

Specially formulated gray gum coating over the stem

LEAD-WIRE COMBINATION UNITS - GRAY GUM					
Part Number	Description	Injury Soze	Box Qty	Case Qty	Carbide
13-672G	1 5/8" (42mm)	3/16" (4.5mm)	24	10	14-345
13-673G	2 1/8" (55mm)	1/4" (6mm)	24	10	14-346
13-674G	2 1/8" (55mm)	5/16" (8mm)	24	10	14-347
13-675G	2 1/8" (55mm)	3/8" (10mm)	16	10	14-348



13-674C

Universal Quilled Combination Units

- For use in radial and bias ply tires
- Designed for chemical vulcanization
- Black vulcanizing gum, white backing
- Equipped with quick-release metal quill for easy installation

L	JNIVERSAL QUILLE	COMBINATION	UNITS	
Part Number	Description	Injury Size	Box Qty	Case Qty
13-381	1 5/8" (42mm) Round	1/8" (3mm)	20	10
13-383	1 7/8" (47mm) Round	3/16" (4.5mm)	20	10
13-382	2 1/4" (57mm) Round	1/4" (6mm)	15	10
13-381SQ	1 5/8" (40mm) Square	1/8" (3mm)	20	10
13-382SQ	2 1/4" (57mm) Square	1/4" (6mm)	15	10



Also available in boxes of 100. Use part number 13-381-100, etc.

Radial Quilled Combination Units

- For use in the tread area of radial tires
- Designed for chemical vulcanization
- Black vulcanizing gum, white backing
- Equipped with metal quill for easy installation

RADIAL QUILLED COMBINATION UNITS						
Part Number	Description	Injury Size	Box Qty	Case Qty		
13-375	1 5/8" x 2 7/8" (42 x 73mm)	1/4" (6mm)	15	10		
13-376	2 1/4" x 4" (57 x 100mm)	5/16" (8mm)	10	10		
13-377	2 5/8" x 5 3/8" (67 x 137mm)	3/8" (10mm)	5	10		



VULCANIZING STEMS

Vulcanizing stems fulfill the industry recommended repair requirements of "filling the injury" when used as part of a two-piece repair system. The lead-wire conveniently guides the stem through installation and seals the injury. Refer to page 125 for repair limitations and follow the installation procedures on page 126.

Lead-Wire Inserts

- For use in radial and bias ply tires
- Dipped or wrapped with vulcanizing gum
- Designed for chemical or heat vulcanization

LEAD-WIRE INSERTS – DIPPED STEM							
New Part Number	Old Part Number	Injury Size	Box Oty	Case Oty	Carbide		
12-412	13-621	3/16" (4.5mm)	20	10	14-345		
12-413	13-620	1/4" (6mm)	20	10	14-346		
12-414	13-622	5/16" (8mm)	20	10	14-347		
12-415	13-623	3/8" (10mm)	20	10	14-348		

LEAD WIRE INSERTS – WRAPPED							
New Part Number	Old Part Number	Injury Size	Box Qty	Case Oty	Carbide		
12-412C	13-621C	3/16" (4.5mm)	20	10	14-345		
12-413C	13-620C	1/4" (6mm)	20	10	14-346		
12-414C	13-622C	5/16" (8mm)	20	10	14-347		
12-415C	13-623C	3/8" (10mm)	20	10	14-348		



UNIVERSAL REPAIR UNITS

Universal repair units follow industry recommended repair requirements for "patching the innerliner" as part of a two-piece repair system. These repair units are rubber reinforced and ideal for puncture repair in tubeless radial and bias ply tires. Refer to page 125 for repair limitations and follow the installation procedures on page 126.

USA-Style Universal Repair Units

- Our most popular universal repair designed for chemical vulcanization
- Black vulcanizing gum, blue poly backing

	USA-STYLE UNIV	ERSAL REPAIR	R UNITS	;	
Part Number	Description	Size (inches)	Size (mm)	Box Oty	Case Oty
11-306	Small Square	1 3/4	45	50	12
11-308	Medium Square	2 1/8	55	25	24
11-310	Large Square	3	75	15	24
11-321 11-321 SB 11-321 LB	Small Round Small Bucket Large Bucket	1 5/8	41	30 300 700	24 - -
11-322 11-322 SB 11-322 LB	Medium Round Small Bucket Large Bucket	2 1/4	57	25 200 500	24 _ _
11-323	Large Round	3 1/4	82	15	24
11-324	Small Oval	1 3/8 x 2 3/8	37 x 61	25	12
11-325	Medium Oval	1 7/8 x 3 7/8	48 x 98	15	12
11-326	Xtra Large Round	4 1/4	110	10	12



11-308

11-322

11-323

11-306

11-325

11-324

Euro-Style Universal Repair Units

- Extra thick yet flexible, heavy-duty nail hole repair
- Designed for chemical or heat vulcanization
- Premium blue vulcanizing gum, white backing

	EURO-STYLE UNIV	ERSAL REPA	IR UNITS	S	
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
11-307	Mini Square	1 1/2	38	50	12
11-309 11-309 SB 11-309 LB	Small Square Small Bucket Large Bucket	1 7/8	48	50 150 350	12 - -
11-311 11-311 SB 11-311 LB	Medium Square Small Bucket Large Bucket	2 1/4	57	50 75 200	12 - -
11-312	Large Square	2 1/2	66	50	12
11-313	Small Oval	1 3/4 x 3	45 x 75	10	10

11-313 11-312 11-311 11-309

Square Universal Repair Units

- Designed for chemical vulcanization
- Gray vulcanizing gum, red or blue poly backing

	SQUARE UNIVER	SAL REPAIR	UNITS		
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
11-115 11-115 SB	Small, Red Poly Small Bucket	1 7/8	47	30 300	24 _
11-115B	Small, Blue Poly	1 7/8	47	30	24
11-116 11-116 SB	Medium, Red Poly Small Bucket	2 1/8	54	30 200	24 _
11-116B	Medium, Blue Poly	2 1/8	54	30	24



PASSENGER RADIAL REPAIR UNITS

These **radial repairs** are a highly-effective reinforced repair units for passenger and light truck radial tires. Refer to page 125 for repair limitations and follow the installation procedures on page 126.

Passenger and Light Truck Radial Puncture Repairs

- Designed for chemical or heat vulcanization
- Flocking cord for strong, flexible repair
- Black vulcanizing gum, white backing

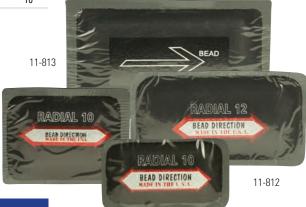


11-413

PASSE	NGER AND LIGHT	TRUCK RADIAL	PUNCTU	RE REP	AIRS	
Part Number	Description	Size (inches)	Size (mm)	Box Oty	Case Oty	
11-413	Small Oval	1 5/8 x 2 7/8	41 x 73	10	10	
11-414	Medium Oval	2 1/8 x 3 7/8	55 x 98	10	10	
11-415	Large Oval	2 5/8 x 5 3/8	67 x 137	10	10	

USA-Style Radial Repair Units

- Each reinforcing ply is individually end-wrapped to deflect tire flexing stresses in a unique manner
- Tie-gum construction eliminates the potential for delamination common in competitive products
- Designed to vulcanize chemically or in low temperature systems
- Gray vulcanizing gum, blue poly backing



11-808

USA-STYLE RADIAL REPAIR UNITS										
Part Number	Description	Size (inches)	Size (mm)	Box Oty	Case Oty					
11-808	Radial 10, 1 Ply	1 5/8 x 3	42 x 75	20	10					
11-810	Radial 10, 1 Ply	2 3/8 x 3	60 x 75	20	10					
11-812	Radial 12, 1 Ply	2 1/4 x 4	57 x 100	10	10					
11-813	Radial 12, 1 Ply	2 3/4 x 4 1/2	70 x 114	10	10					

11-810

Euro-Style Radial Repair Units

- Each reinforcing ply is specifically end-cut and wrapped to "float" inside the patch to prevent end cracking or breakout common in competitive products
- Designed to vulcanize chemically, in low temperature, or high heat curing systems
- Premium blue vulcanizing gum, white backing

Tronna	in blue valeanizing g	am, winto baokin	9		
E	URO-STYLE PASS	ENGER RADIA	L REPAIR (JNITS	
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
11-708	Radial 10, 1 Ply	1 3/4 x 2 7/8	45 x 73	20	10
11-710	Radial 10, 1 Ply	2 x 3	50 x 75	20	10
11-712	Radial 12, 1 Ply	2 1/4 x 4	57 x 102	10	10
11-712A	Radial 12, 1 Ply	2 3/4 x 4 5/8	70 x 118	10	10



11-708

PROFESSIONAL PUNCTURE REPAIR | TUBE REPAIR



These tube repair units, designed principally for use on inner tubes, are twice as strong as the tube being repaired and have a feather-edge design to prevent chaffing. When repairing inner tubes, buttonhole the ends of the injury and select a repair unit at least twice as large as the injury being repaired.

	FEATHER-E	DGETUBE RE	PAIR UNI	rs	
Part Number	Part Number Description		Size (mm)	Box Qty	Case Oty
11-000	Mini Round	1 1/4	32	100	12
11-001	Small Round	1 3/4	41	40	24
11-002	Medium Round	2 1/4	57	30	24
11-003	Large Round	3 1/4	82	20	12
11-007	Giant Round	5	125	10	6
11-004	Small Oval	1 3/8 x 2 3/8	35 x 60	30	12
11-005	Medium Oval	1 3/4 x 3 3/4	45 x 97	20	12
11-006	Large Oval	2 1/2 x 5 5/8	65 x 144	20	12
11-008	Giant Oval	3 3/4 x 6 1/8	95 x 155	10	6

FOIL-BACK TUBE REPAIR UNITS										
Part Number Description		Size (inches)	Size (mm)	Box Oty	Case Qty					
11-032	Mini Round	1	26	80	12					
11-038	X-tra Small Round	1 3/8	35	70	12					
11-045	Small Round	1 5/8	42	50	12					
11-055	Medium Round	2	52	40	12					
11-079	Large Round	3	77	20	12					

EURO-STYLETUBE REPAIR UNITS							
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty		
11-632	Mini Round	1 1/4	30	100	12		
11-638	X-tra Small Round	1 3/8	35	50	12		
11-645	Small Round	1 5/8	42	40	12		
11-655	Medium Round	2	52	30	12		
11-679	Large Round	3	77	20	12		
11-690	X-tra Large Round	3 1/2	90	10	12		
11-6115	Giant Round	4 1/2	114	10	12		
11-672	Mini Oval	1 1/8 x 1 5/8	28 x 42	50	12		
11-673	X-tra Small Oval	1 1/2 x 2 1/2	38 x 64	50	12		
11-674	Small Oval	1 7/8 x 2 7/8	48 x 72	40	12		
11-675	Medium Oval	2 1/8 x 4 1/2	55 x 115	30	12		
11-676	Large Oval	2 3/8 x 5 3/4	60 x 145	20	12		

	BICYCLE REPAIR KITS	
Part Number	Description	Case Oty
13-201	Bicycle Tube Repair Kit In Dispenser Contains: 3 - 1" x 1" patch, 8 sq. in. of rubber, 1 cement tube, 1 thumb buffer — 12 kits/sleeve	12
13-208	Bicycle Tube Repair Kit In Canister Contains: Contains: 30 sq. in. of rubber, 8 – 1" x 1" patches, 1 cement tube, 1 thumb buffer	12
13-209	Bicycle Tube Repair Kit Contains: 10 – mini patches, 1 cement tube, 1 thum	– b buffer

Feather-Edge Tube Repair Units

- Designed for chemical vulcanization
- Black vulcanizing gum, white poly backing



Foil-Back Tube Repair Units



Euro-Style Tube Repair Units





HEAVY-DUTY TIRE REPAIR SYSTEMS

31 Inc. offers complete startup systems for heavy-duty truck tire puncture repair. Each system includes the recommended mix of tire repair materials, chemicals, and tools for the job. Precise step-by-step, industry approved guidelines are included as well in each of these manageable and well organized systems.

See Page 137 for Complete Contents Listing of Tire Repair Systems

31 Inc. helps take the guesswork out of your tire service program.

Safe & Effective It's easy with XtraSeal tire repair systems.

14-605 **Heavy-Duty Truck Tire Service Set with Wall Cabinet**

- Deluxe wall-mount cabinet
- Loaded to complete over 130 industry standard puncture repairs
- All the tools + reversible drill, XLIGHT, air powered vacuum, carbide cutters, and more



14-657 **Heavy-Duty Toolbox Kit**

- Complete set includes all the materials, chemicals and tools for industry standard puncture repair
- Also includes reversible drill, air powered vacuum, carbide cutters, and XLIGHT
- Organized in a large rugged toolbox
- Includes puncture repair procedures guide and poster



14-650 **Truck Tire Nail Hole Repair Kit**

- Our original puncture repair kit for truck tires
- Includes both two-piece and one-piece repair units, tools, and instructions
- Ready for radial and bias-ply tire repair
- Heavy-duty toolbox



PROFESSIONAL PUNCTURE REPAIR | HEAVY-DUTY



13-673

1-PIECE REPAIR

PATCH-PLUG AREA

ANGLE OF INJURY

HEAVY-DUTY COMBINATION REPAIR UNITS

Combination repair units fulfill the industry recommended repair requirements of "filling the injury" and "patching the innerliner" for a one-piece repair system. Use when the injury angle is less than 25 degrees. Refer to page 125 for repair limitations and follow the installation procedures on page 126.

Lead-Wire Combination Units

- For use in radial and bias ply tires
- Designed for chemical or heat vulcanization
- Patch portion has gray vulcanizing gum with blue poly backing
- Stem portion is dip coated or wrapped with premium vulcanizing gum

LEAD-WIRE COMBINATION UNITS - DIPPED STEM							
Part Number Description		Injury Size	Box Qty	Case Qty	Carbide		
13-672	1 5/8" (42mm)	3/16" (4.5mm)	24	10	14-345		
13-673	2 1/8" (55mm)	1/4" (6mm)	24	10	14-346		
13-674	2 1/8" (55mm)	5/16" (8mm)	24	10	14-347		
13-675	2 1/8" (55mm)	3/8" (10mm)	16	10	14-348		

LEAD-WIRE COMBINATION UNITS - WRAPPED STEM								
Part Number	Description	Injury Size	Box Qty	Case Qty	Carbide			
13-672C	1 5/8" (42mm) Round	3/16" (4.5mm)	24	10	14-345			
13-673C	2 1/8" (55mm) Round	1/4" (6mm)	24	10	14-346			
13-674C	2 1/8" (55mm) Round	5/16" (8mm)	24	10	14-347			
13-675C	2 1/8" (55mm) Round	3/8" (10mm)	16	10	14-348			
13-774C	3 1/2" (88mm) Square	3/8" (10mm)	5	6	14-348			
13-775C	4" (100mm) Square	1/2" (12.5mm)	5	6	14-349			

13-774C



Gray Gum Lead-Wire Combination Units

• Specially formulated gray gum coating over the stem

	LEAD-WIRE COM	BINATION UNIT	S - GRA	Y GUM	
Part Number	Description	Injury Size	Box Qty	Case Qty	Carbide
13-672G	1 5/8" (42mm)	3/16" (4.5mm)	24	10	14-345
13-673G	2 1/8" (55mm)	1/4" (6mm)	24	10	14-346
13-674G	2 1/8" (55mm)	5/16" (8mm)	24	10	14-347
13-675G	2 1/8" (55mm)	3/8" (10mm)	16	10	14-348





HEAVY-DUTY RADIAL REPAIR UNITS

Heavy-Duty Radial Repairs are designed for use in puncture, reinforcement, and section repairs in any repairable area of a passenger, truck, agricultural, or earthmover radial tire. Radial Repairs are extremely strong yet very flexible.



- specifically end-cut and wrapped to "float" inside the patch to prevent end cracking or breakout common in competitive products
- Designed to vulcanize chemically, in low temperature, or high heat curing systems
- Premium blue vulcanizing gum, white backing

	EURO	-STYLE HEAV	-DUTY RAD	DIAL REF	AIR UNI	TS	
Part Number	Description	Size (inches)	Size (mm)	Box Oty	Case Oty	AR Series	U Series
11-708	Radial 10, 1 Ply	1 3/4 x 2 7/8	45 x 73	20	10	11-AR708	
11-710	Radial 10, 1 Ply	2 x 3	50 x 75	20	10	11-AR710	
11-712	Radial 12, 1 Ply	2 1/4 x 4	57 x 102	10	10	11-AR712	
11-712A	Radial 12, 1 Ply	2 3/4 x 4 5/8	70 x 118	10	10	11-AR712A	
11-714	Radial 14, 1 Ply	3 3/8 x 4	87 x 100	10	10	11-AR714	
11-720	Radial 20, 2 Ply	2 3/4 x 5	70 x 125	10	6	11-AR720	
11-722	Radial 22, 2 Ply	3 x 6	76 x 150	10	6	11-AR722	
11-724	Radial 24, 2 Ply	2 7/8 x 8 1/2	73 x 215	10	6	11-AR724	11-724U
11-725	Radial 25, 3 Ply	4 1/2 x 5	115 x 125	10	1	11-AR725	
11-726	Radial 26, 3 Ply	3 x 10 3/8	75 x 265	10	1	11-AR726	11-726U
11-728	Radial 28, 3 Ply	3 x 12 3/4	76 x 325	10	1	11-AR728	11-728U
11-735	Radial 35, 3 Ply	5 x 7 1/8	128 x 181	10	1	11-AR735	11-735U
11-740	Radial 40, 3 Ply	3 7/8 x 7 3/8	98 x 187	10	6	11-AR740	11-740U
11-742	Radial 42, 4 Ply	4 7/8 x 9 7/8	123 x 250	10	1	11-AR742	11-742U
11-744	Radial 44, 4 Ply	4 3/4 x 13	121 x 330	10	1	11-AR744	11-744U
11-745	Radial 45, 4 Ply	7 1/2 x 9	191 x 230	5	1	11-AR745	11-745U

AR Series:

These repair units are reinforced with Aramid Cord.

- Stronger than steel (pound for pound)
- Safer and easier to install than steel
- Easier to use in low profile tires
- Lightweight No balancing distortion
- Reduces sidewall bulging

U Series:

These repair units are uncured for use in heat curing systems only.



NOTE

Injury MUST be within repairable limits. Refer to page 125 for repair limitations.

USA-Style Radial Repair Units

- Each reinforcing ply is individually end-wrapped to deflect tire flexing stresses in a unique manner
- Tie-gum construction eliminates the potential for delamination common in competitive products
- Designed to vulcanize chemically or in low temperature systems
- Gray vulcanizing gum, blue poly backing



	_				_	
R	C	_	п	_	c	
ĸ		-	ĸ	-		

(Part numbers 11-824R, 11-826R, 11-840R, etc.) These repair units are designed to be used in high heat (mold cure) systems.

* Curing Information for R Series

Heat Chamber:

240°F (116°C) for 72 min., 270°F - 320°F (132°C - 160°C) for 30 min.

Spotter:

270°F - 320°F (132°C - 160°C), 10 min. per 1/8" (3mm)

A SERIES:

(Part numbers 11-824A, 11-826A, 11-840A, etc.) These repair units have no face gum (ply package only) on black Holland cloth.

12-414

12-415

USA-STYLE HEAVY-DUTY RADIAL REPAIR UNITS Part Number Description Size (inches) Size (mm) Box Qty Case Qty 11-808 Radial 10, 1 Ply 15/8 x 3 42 x 75 20 10 11-810 20 Radial 10, 1 Ply 23/8 x3 60 x 75 10 11-812 Radial 12, 1 Ply 2 1/4 x 4 57 x 100 10 10 11-813 Radial 12, 1 Ply 23/4 x 4 70 x 100 10 10 11-814 Radial 14, 1 Ply 3 3/4 x 4 95 x 100 10 10 11-820 Radial 20, 2 Ply 27/8 x 5 72 x 125 10 6 11-822 Radial 22, 2 Plv 3 x 6 75 x 150 10 6 11-824 Radial 24, 2 Ply 3 x 8 1/2 75 x 215 10 6 11-825 Radial 25, 3 Ply 4 1/2 x 5 115 x 125 10 1 11-826 Radial 26, 3 Ply 3 x 11 76 x 278 10 1 11-828 Radial 28, 3 Ply 3 x 14 76 x 355 10 1 11-835 Radial 35, 3 Ply 5 1/4 x 7 133 x 180 1 11-840 Radial 40, 3 Ply 4 x 7 3/8 100 x 188 6 11-842 Radial 42, 4 Ply 5 x 10 125 x 254 10 1 11-844 Radial 44, 4 Ply 5 x 13 125 x 330 10 11-845 Radial 45, 4 Ply 7 1/2 x 9 1/2 5 190 x 240

VULCANIZING STEMS

Vulcanizing stems fulfill the industry recommended repair requirements of "filling the injury" when used as part of a twopiece repair system. The lead-wire conveniently guides the stem through installation and seals the injury. Refer to page 125 for repair limitations and follow the installation procedures on page 126.

Lead-Wire Inserts

- For use in radial and bias ply tires
- Dipped or Wrapped with vulcanizing gum
- Designed for chemical or heat vulcanization

	LEAD-WI	RE INSERTS -	DIPPE	D STEN	Л
New Part Number	Old Part Number	Injury Size	Box Oty	Case Oty	Carbide
12-412	13-621	3/16" (4.5mm)	20	10	14-345
12-413	13-620	1/4" (6mm)	20	10	14-346
12-414	13-622	5/16" (8mm)	20	10	14-347
12-415	13-623	3/8" (10mm)	20	10	14-348



12-412

LEAD WIRE INSERTS – WRAPPED									
New Part Number	Old Part Number	Injury Size	Box Oty	Case Qty	Carbide				
12-412C	13-621C	3/16" (4.5mm)	20	10	14-345				
12-413C	13-620C	1/4" (6mm)	20	10	14-346				
12-414C	13-622C	5/16" (8mm)	20	10	14-347				
12-415C	13-623C	3/8" (10mm)	20	10	14-348				

			COI RADI	AL APPLI	CATION CHART			
SIDEWA	ALL INJURY	TREAD INJURY		ENGER	LIGHT TRUCK		TRUCK	EARTHMOVER
								□ □
	L= Length of injury W=Width of injury			0		0-0	~~OO[0 0
			Cnood	Dotingo	6.50 - 12.50	7.50 - 10.00	11.00 - 14.00	14.00 - 40.00
Maximum	Maximum	Maximum		Ratings (, Y and Z		8 - 11	12 - 16.5	15.5 - 50.5
Width	Length	Diameter			215/85 - 255/85	235/80 - 275/80	295/80 - 315/80	00/05 05/05
		1/8" (3mm)	125 - 195 10	205 - 255 10	215/75 - 285/60 10	225/75 - 295/75 10	305/75-495/45 10	20/65 - 65/65 42
1/8"(3mm)	1/8" (3mm)	1/0 (3111111)	10	10	10	12	12	42
170 (011111)	170 (011111)	1/4" (6mm)	10	10	12	12	12	42
	1/4" (6mm)	, , ,				22	22	42
1/4"(6mm)	5/16" (8mm)					22	22	42
	1 1/2" (40mm)				20	22	22	
1 cable	3 1/8" (80mm)				22	22	22	
	4 3/4" (120mm)					24	24	
	6" (150mm) 3/4" (19mm)				20	26 22	26 22	
	3/4" (19mm) 1 1/2" (40mm)				20	22	24	-
2 cables	2 3/8" (60mm)				22	24	26	
	5 1/8" (130mm)				22	26	28	
	, , , , , , , ,	3/8" (10mm)			20	20	20	42
	1 1/2" (40mm)				20	26	40	44
3/8" (10mm)								
,	2 3/8" (60mm)				22	26	40	
	3 1/8" (80mm)				26	40 42	42 44	
	5 1/8" (130mm)	1/2" (12mm)			22	25	25	44
	1 1/2" (40mm)	1/2 (12111111)			22	40	40	77
	1 1/2 (1011111)					10	10	44
1/2" (12mm)	2 3/4" (70mm)				22	40	42	
	3 3/4" (95mm)				40	42	42	
	5 1/8" (130mm)					44	44	
		3/4" (19mm)			22	25	*35/40	44
	411 (05)				00	40	40	
	1" (25mm)				22	40	40	44
3/4" (19mm)								44
o, . (10/11111)	2 1/2" (65mm)				24	42	42	1
	4 3/8" (110mm)					42	44	
	5 1/8" (130mm)					44	44	
		1" (25mm)			25	*35/42	*35/42	44
	0" (=-							
1" (25mm)	2" (50mm)				40	42	44	
	3 1/8" (80mm) 4" (100mm)					42 44	44	
	4 (100111111)	1 1/4" (30mm)				*35/42	*35/42	
	2" (50mm)	11/4 (3011111)				42	44	
1 1/4" (30mm)	3 1/8" (80mm)					44	44	
	4" (100mm)							
SHOULI	DER INJURY							
		1/4" (6mm)			22	24	24	42
		3/8" (10mm)			24		40	
	D =	1/2" (12mm) 3/4" (19mm)			24	24 40	40	44
a a a	Diameter of injury	1" (25mm)			40	40	44	-
		i (ZJIIIII)		1	1 +0	1 77	177	

^{*35} are for crown (tread) only repairs.

HEAVY-DUTY AGRICULTURAL RADIAL REPAIR UNITS



Euro-Style 11-780 **Radial Agricultural Repair Units**

- Each reinforcing ply is specifically end-cut and wrapped to "float" inside the patch to prevent end cracking or breakout common in competitive products
- Designed to vulcanize chemically, in low temperature, or high heat curing systems
- Premium blue vulcanizing gum, white backing

	EURO-STYLE RADIAL AGRICULTURAL REPAIR UNITS									
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty					
11-780	Radial 80, 2 Ply	5 7/8 x 7 3/4	150 x 197	5	1					
11-782	Radial 82, 3 Ply	7 3/8 x 10	188 x 254	5	1					
11-784	Radial 84, 3 Ply	8 3/8 x 11 3/8	213 x 290	5	1					
11-786	Radial 86, 3 Ply	9 5/8 x 13 3/8	245 x 340	5	1					



USA-Style Radial Agricultural Repair Units

- Each reinforcing ply is individually end-wrapped to deflect tire flexing stresses in a unique manner
- Tie-gum construction eliminates the potential for delamination common in competitive products
- Designed to vulcanize chemically or in low temperature systems
- Gray vulcanizing gum, blue poly backing

	USA-STYLE RADIAL AGRICULTURAL REPAIR UNITS									
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty					
11-880	Radial 80, 2 Ply	5 7/8 x 7 3/4	150 x 197	5	1					
11-882	Radial 82, 3 Ply	7 1/2 x 10	190 x 254	5	1					
11-884	Radial 84, 3 Ply	8 1/2 x 11 1/2	216 x 292	5	1					
11-886	Radial 86, 3 Ply	9 3/4 x 13 3/8	248 x 340	5	1					

R	RADIAL AGRICULTURAL APPLICATION CHART								
SIDEW	ALL INJUR	Υ	TREAD	INJURY	AGRICU	LTURAL			
Land I		Length of injury -Width of injury			Ö	0			
Maximum		imum		imum	8 - 11	12 - 15			
Width	Lei	ngth	Diar	neter	8.3 - 12.4	13.6 - 30.5			
1/4" (6mm)	1/4"	(6mm)			12	12			
3/8" (10mm)	3/8"	(10mm)	3/8"	(10mm)	12	12			
3/0 (1011111)	1 1/2"	(40mm)			20	20			
3/4" (19mm)	3/4"	(19mm)	3/4"	(19mm)	20	20			
3/4 (13111111)	3"	(75mm)			22	80			
1 1/2" (40mm)	4"	(100mm)	1 1/2"	(40mm)					
2" (50mm)	3 1/4"	(80mm)			80				
2 1/2" (65mm)	3"	(75mm)				82			
2 1/2 (0311111)	4"	(100mm)				02			
2 3/4" (70mm)	2 3/4"	(70mm)	2 3/4"	(70mm)	80				
3 1/4" (80mm)	3 1/4"	(80mm)							
3 1/4 (00111111)	5 1/4"	(130mm)							
3 1/2" (90mm)	4 1/2"	(115mm)	3 1/2"	(90mm)		84			
4" (100mm)	4"	(100mm)							
4 (100111111)	6 1/2"	(165mm)				86			
5 1/4" (130mm)	5 1/4"	(130mm)	5 1/4"	(130mm)		00			

USING THIS CHART

- 1) Measure the injury being repaired across the largest area of broken or removed cord. If injury is in the sidewall, measure width (across the cords) and length (along the cords). If injury is in the tread or shoulder area, measure the diameter of the injury.
- 2) Locate these measurements under the appropriate injury column. If actual injury size is between measurements on the chart, go up to the next largest measurement.
- 3) When you locate the correct injury size on the chart. go to the appropriate tire size column. Where the injury size row and the tire size column intersect is the correct COI Radial repair unit to use.



REPAIRtips

When installing repair units in agricultural tires that will contain calcium, coat the entire repair unit with 14-128A Inner Liner Sealer after installation.

HEAVY-DUTY AGRICULTURAL BIAS-PLY REPAIR UNITS

Bias-ply repair units are designed for use in nailhole, reinforcing, or section repairs and can be applied in any repairable area of a tube or tubeless bias ply tire.

(CP CROSS-PL	Y-BIAS AG	RICULT	JRAL	
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
11-386	CP0, 1 Ply	2 1/8	55	20	12
11-387	CP1, 1 Ply	3	77	10	12
11-388	CP2, 2 Ply	3 5/8	92	10	12
11-453	CP3, 2 Ply	4 3/8	112	10	10
11-454	CP4, 4 Ply	5 1/2	140	10	10
11-455	CP5, 4 Ply	6 3/4	172	10	10
11-456	CP6, 6 Ply	9 5/8	250	5	6
11-457	CP7, 6 Ply	11 3/8	290	5	6
11-458	CP8, 6 Ply	13 3/8	341	5	6
11-459	CP9, 8 Ply	15	380	3	6
11-4510	CP10, 8 Ply	16 1/4	415	3	1
	DT OBOOD B	IV DIAG AG	DIGILIT		

CI	PT CROSS-P	LY-BIAS AG	RICULT	URAL	
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
11-460	CPT0, 4 Ply	8 1/8	207	10	6
11-461	CPT1, 4 Ply	9 1/4	234	5	6
11-462	CPT2, 4 Ply	11 5/8	295	5	6
11-463	CPT3, 4 Ply	15	380	5	1
11-464	CPT4, 6 Ply	9 1/4	235	5	6
11-465	CPT5, 6 Ply	11 5/8	295	5	6
11-466	CPT6, 6 Ply	15	381	5	1
11-467	CPT7, 6 Ply	19 1/2	495	3	1

CP repair units are also available for high heat (mold cure) systems. Request part number 11-453R, 11-454R, 11-455R, etc.

CPT repair units are also available for high heat (mold cure) systems. Request part number 11-460R, 11-461R, 11-462R, etc.

	RN RIAS-F	PLY AGRIC	ULTURA	L	
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
11-488	BN1, 1 Ply	2 1/8	55	30	12
11-489	BN2, 2 Ply	3	75	20	12
11-490	BN3, 2 Ply	3 1/2	89	20	10
11-491	BN4, 2 Ply	4 1/4	110	10	10
11-492	BN5, 2 Ply	5 1/4	135	10	10
11-493	BN7, 3 Ply	6 1/2	165	10	10
11-494	BN8, 3 Ply	7 1/2	190	10	10
11-495	BN9, 4 Ply	8 5/8	220	10	5
11-496	BN10, 6 Ply	9 7/8	250	5	5
11-497	BN12, 6 Ply	12	305	5	5
11-498	BN15, 8 Ply	15	380	3	6
11-499	BN20, 8 Ply	20	508	3	1
	BNT BIAS-	PLY AGRIC	ULTUR	AL	
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
11-480	BNT20, 4 Ply	9 7/8	250	10	5
11-481	BNT21, 4 Ply	14 1/2	370	5	6
11-482	BNT22, 4 Ply	20	508	3	1
11-483	BNT23, 6 Ply	9 7/8	250	10	5
11-484	BNT24, 6 Ply	14 1/2	370	5	6
11-485	BNT25, 6 Ply	20	508	3	1

CP Cross-Plv-Bias / CPT Cross-Ply-Bias Agricultural

- Each reinforcing ply is protected and encased in a molded ply package making each unit strong while remaining flexible
- Designed to vulcanize chemically or in low temperature systems
- Gray vulcanizing gum, blue poly backing



BN Bias-Ply / BNT Bias-Ply Agricultural

- Each reinforcing ply is protected and encased in a molded-ply package making each unit strong while remaining flexible
- Fine feather edge eliminates chaffing
- · Designed to vulcanize chemically, in low temperature, or high heat curing systems
- Premium blue vulcanizing gum, white backing



AG Bias Ply

- Designed primarily for use in agricultural bias ply tube or tubeless tires
- Designed for chemical vulcanization
- Black vulcanizing gum, blue poly backing

	AG BIAS	S PLY REPA	AIR UNI	ГS	
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
11-470	AG3, 2 Ply	3 1/2	90	20	10
11-471	AG4, 2 Ply	4 1/2	115	10	10
11-472	AG5, 2 Ply	5 1/2	140	10	10
11-473	AG6, 3 Ply	6 1/2	165	10	10
11-474	AG7, 4 Ply	7 1/2	190	10	10
11-475	AG8, 4 Ply	8 1/2	215	10	5
11-476	AG10, 6 Ply	10 1/2	265	5	5
11-477	AG12, 6 Ply	12 1/2	317	5	5
11-478	AG15, 8 Ply	15 1/2	394	1	1
11-479	AG18, 8 Ply	18 1/2	470	1	1



Chop Cord Emergency Boots

- Designed primarily for use in agricultural tires
- Flocking cord reinforced for a strong yet flexible repair
- Designed for chemical vulcanization
- Black vulcanizing gum, white poly backing

	CHOP COR	D EMERGE	NCY BOOTS	
Part Number	Description	Size (inches)	Size (mm)	Box Qty
11-503	Round Boot	3	76	50
11-507	Round Boot	4 1/2	115	50
11-509	Oval Boot	4 x 5	100 x 130	25
11-511	Oval Boot	5 1/2 x 8	140 x 203	25
11-513	Oval Boot	7 x 10	180 x 255	25
11-515	Oval Boot	9 x 12	230 x 305	10
11-517	Oval Boot	10 x 14	255 x 350	10



HEAVY-DUTY AGRICULTURAL COMBINATION REPAIR UNITS

Agricultural Combination Units

- For use in radial and bias ply agricultural and OTR tires (low pressure, slow speed)
- · Designed for chemical or heat vulcanization
- Patch portion has gray vulcanizing gum with blue poly backing



AGRICULTURAL COMBINATION UNITS								
Part Number	Patch Size	Stem Diameter	Carbide Cutter	Box Qty				
13-788	4" (100mm)	5/8" (15mm)	14-349	5				



					Е	IAS P	LY REP	AIR A	PPLIC/	ATION	CHAR	Т					
Pi	INJURY SIZE																
Ply Rating	3mm	6mm	10mm	15mm	20mm 3/4"	25mm 1"	40mm	50mm 2"	65mm	75mm 3"	100mm 4"	125mm 5"	150mm 6"	175mm 7"	200mm 8"	225mm 9"	250mm 10"
	1/8"	1/4"	3/8"	1/2"			1 1/2"		2 1/2"	_	·	_	0	,	0	9	10
							NGER			ARTHI	NOVER	R					
4	CP0	CP0	CP1	CP2	CP3	CP3	CP4	CP5	CP6								
•	BN1	BN1	BN2	BN3	BN4	BN4	BN4	BN7	BN9								
6	CP0	CP0	CP1	CP2	CP3	CP3	CP4	CP5	CP6								
	BN1	BN2	BN3	BN4	BN5	BN5	BN8	BN9	BN10								
8	CP0 BN1	CP0 BN2	CP2 BN3	CP3 BN4	CP3 BN5	CP4 BN5	CP4 BN8	CP5 BN9	CP6 BN10								
10	CP0	CP1	CP2	CP3	CP3	CP4	CP5	CP6	CP6	CP7	CP8						
10	BN1	BN3	BN4	BN5	BN7	BN9	BN9	BN10	BN10	BN12	BN12						
12	CP0	CP1	CP2	CP4	CP4	CP4	CP5	CP6	CP6	CP7	CP8						
	BN1	BN3	BN4	BN5	BN7	BN9	BN9	BN10	BN10	BN12	BN12						
14	CP0	CP1	CP3	CP4	CP4	CP5	CP6	CP6	CP7	CP7	CP8	CP10					
	BN1	BN3	BN4	BN5	BN8	BN10	BN10	BN12	BN12	BN12	BN15	BN20					
16	CP0	CP1	CP4	CP4	CP5	CP5	CP6	CP6	CP7	CP7	CP8	CP10					
	BN1	BN3	BN4	BN5	BN8	BN10	BN10	BN12	BN12	BN12	BN15	BN20					
18	CP0	CP1	CP4	CP5	CP5	CP6	CP6	CP7	CP8	CP8	CP9	CP10					
	BN2	BN3	BN5	BN7	BN9	BN10	BN12	BN15	BN15	BN15	BN15	BN20					
20	CP0	CP1	CP4	CP5	CP5	CP6	CP7	CP8	CP8	CP9	CP9	CP10					
	BN2	BN3	BN5	BN7	BN9	BN10	BN12	BN15	BN15	BN15	BN15	BN20					
22	CP0	CP1	CP4	CP6	CP6	CP7	CP8	CP8	CP8	CP9	CP10						
	BN2	BN3	BN5	BN8	BN10	BN10	BN12	BN15	BN15	BN15	BN20						
24	CP0	CP1	CP4	CP6	CP6	CP7	CP8	CP8	CP8	CP9	CP10						
	BN2	BN3	BN5	BN8	BN10	BN10	BN12	BN15	BN15	BN15	BN20						
	FARM, TRACTOR, SKIDDER																
4	CP0	CP0	CP1	CP2	CP3	CP3	CP4	CP5	CPT0	CPT0	CPT1	CPT2	CPT2	CPT3	CPT3		
	BN3	BN4	BN4	BN5	BN7	BN8	BN8	BN9	BN9	BNT20	BNT20	BNT21	BNT21	BNT21	BNT22		
6	CP0	CP0	CP1	CP2	CP3	CP3	CP4	CP5	CPT0	CPT0	CPT1	CPT2	CPT2	CPT3	CPT3		
	BN3	BN4	BN4	BN5	BN7	BN8	BN8	BN9	BN9	BNT20	BNT20	BNT21	BNT21	BNT22	BNT22		
8	CP0	CP1	CP2	CP2	CP3	CP4	CP4	CP5	CPT0	CPT0	CPT1	CPT2	CPT2	CPT3	CPT3	CPT6	CPT7
	BN3	BN4	BN5	BN7	BN8	BN8	BN9	BN9	BNT20	BNT20	BNT20	BNT21	BNT21	BNT22	BNT25	BNT25	BNT25
10	CP0	CP1	CP2	CP3	CP3	CP4	CP5	CP6	CPT1	CPT1	CPT4	CPT5	CPT5	CPT6	CPT6	CPT7	CPT7
	BN3	BN4	BN5	BN7	BN8	BN8	BN9	BN9	BNT20	BNT20	BNT23	BNT24	BNT24	BNT25	BNT25	BNT25	BNT25
12	CP0	CP1	CP2	CP4	CP4	CP4	CP5	CP6	CPT4	CPT4	CPT4	CPT5	CPT5	CPT6	CPT7	CPT7	CPT7
44	BN3	BN4	BN5	BN7	BN8	BN8	BN9	BN9	BNT23	BNT23	BNT23	BNT24	BNT24	BNT25	BNT25	BNT25	BNT25
14	CP0 BN4	CP1 BN5	CP4 BN7	CP4 BN8	CP4 BN8	CP5	CP6	CP6	CPT4	CPT5	CPT5	CPT5	CPT6	CPT7 BNT25	CPT7 BNT25	CPT7	
16	CP0	CP1	CP4	CP4	CP5	BN9 CP5	BN10 CP6	BN10 CP6	BNT23 CPT5	BNT24 CPT5	BNT24 CPT5	BNT24 CPT6	BNT24 CPT6	CPT7	CPT7	BNT25	
10	BN4	BN5	BN7	BN8	BN8	BN9	BN10	BNT23	BNT24	BNT24	BNT24	BNT24	BNT25	BNT25	BNT25		
18	CP0	CP1	CP4	CP5	CP5	CP6	CPT2	CPT3	CPT5	CPT6	CPT6	CPT6	CPT6	CPT7	CPT7		
	BN5	BN7	BN8	BN9	BN9	BN10	BNT23	BNT24	BNT24	BNT24	BNT24	BNT25	BNT25	BNT25	BNT25		
	5.10	2.17	2.10	2.10	2						-	5.1.20	5.1.20	5.1.20	2.1.20		
	0.00	000	004	000	0.00		REINFO					000					
8-12	CP0	CP0	CP1	CP2	CP3	CP3	CP4	CP4	CP5	CP6	CP7	CP8					
	BN1	BN2	BN3	BN3	BN4	BN4	BN5	BN8	BN9	BN10	BN12	BN15					
14.10	AG3	AG3	AG3	AG3	AG4	AG5	AG5	AG7	AG8	AG10	AG12	AG15					
14-18	CP0	CP0	CP1	CP2	CP4	CP4	CP5	CP5	CP6	CP6	CP7	CP8					
	BN1	BN3	BN4	BN4	BN5	BN5	BN7	BN9	BN10	BN10	BN12	BN15					
20-24	AG3 CP0	AG3 CP0	AG4 CP2	AG4 CP4	AG5 CP5	AG6 CP5	AG6 CP6	AG8 CP6	AG10 CP7	AG10 CP7	AG12 CP8	AG18 CP9					
20-24	BN2	BN3	BN4	BN5	BN7	BN8	BN9	BN10	BN12	BN12	BN15	BN15					
	AG3	AG3	AG4	AG5	AG6	AG7	AG7	AG10	AG12	AG12	AG15	AG18					
	AUJ	Ado	AU4	Add	AUU	AU/	AUI	A010	AUIZ	AUIZ	AUIS	AU 10					

USING THIS CHART:

- 1. Use the appropriate section of this chart for the repair being performed.
- 2. Note the ply rating of the tire being repaired and locate this in the left hand column of appropriate section.
- 3. Measure the injury being repaired across the largest area of broken or removed cord. Locate this injury size, or next largest size listed, along the top row.
- 4. Use the specified repair unit where the column and row intersect.



NOTE

Injury MUST be within repairable limits. Refer to page page 125 for repair limitations

GIANT OTR REPAIR UNITS

Giant OTR Bias Ply Repair Units

- Each reinforcing ply is protected and encased in a molded ply package making each unit strong while remaining flexible
- Designed for chemical or heat vulcanization (if heat curing, apply floater gum)
- Black vulcanizing gum, white backing

Giant OTR Bias Ply Repair Units -Uncured

- Heavy duty construction with floater gum
- Designed for heat vulcanization
- Uncured repair unit with green poly backing

Giant OTR Bias Ply Repair Units, Aramid Reinforced, Semi Cured

- Reinforced with aramid cord for added strength
- Designed for heat vulcanization

GIANT OTR BIAS PLY								
Part Number	Uncured Part Number	Description	Size (inches)	Size (mm)	Box Qty			
11-950	11-950U	4-Ply	4 x 4	102 x 102	12			
11-951	11-951U	4-Ply	6 x 6	152 x 152	12			
11-952	11-952U	6-Ply	8 x 8	203 x 203	12			
11-953	11-953U	6-Ply	10 x 10	254 x 254	12			
11-954	11-954U	7-Ply	12 x 12	305 x 305	12			
11-955	11-955U	8-Ply	14 x 14	356 x 356	6			
11-956	11-956U	8-Ply	16 x 16	406 x 406	6			
11-957	11-957U	10-Ply	18 x 18	457 x 457	3			
11-958	11-958U	12-Ply	20 x 20	508 x 508	3			
11-959	11-959U	12-Ply	22 x 22	559 x 559	3			
11-9510	11-9510U	14-Ply	24 x 24	610 x 610	3			

	IANT OTR	BIAS PLY ED – SEMI (CURED
Part Number	Size (inches)	Size (mm)	Box Qty
11-950KSC	4 x 4	102 x 102	12
11-951KSC	6 x 6	152 x 152	12
11-952KSC	8 x 8	203 x 203	12
11-953KSC	10 x 10	254 x 254	12
11-954KSC	12 x 12	305 x 305	12
11-955KSC	14 x 14	356 x 356	6
11-956KSC	16 x 16	406 x 406	6
11-957KSC	18 x 18	457 x 457	3
11-95206KSC	20 x 6	508 x 152	3
11-95227KSC	22 x 7	559 x 178	3
11-95238KSC	23 x 8	584 x 203	3

11-953U

11-953

11-950U

11-950

Aramid Radial Ply Packages

- Strong and flexible Aramid cord construction
- Designed for use when "floating" repair units
- Fresh cushion, heat and pressure vulcanizing required
- Ply package only on black cloth backing
- · Extended shelf life

AR	AMID RADIAL	PLY PACKAG	GES
Part Number	Description	Size (inches)	Size (mm)
11-820AJL	Radial 20, 2 Ply	2 1/2 x 4 3/8	62 x 112
11-822AJL	Radial 22, 2 Ply	2 3/4 x 5 5/8	70 x 144
11-824AJL	Radial 24, 2 Ply	2 1/2 x 8	65 x 205
11-826AJL	Radial 26, 2 Ply	2 1/2 x 9 7/8	65 x 250
11-840AJL	Radial 40, 2 Ply	3 5/8 x 7	93 x 180
11-844AJL	Radial 44, 3 Ply	4 3/4 x 12 3/8	120 x 314
11-848AJL	4 Ply	3 1/8 x 9 3/4	80 x 248
11-849AJL	4 Ply	3 1/8 x 11 3/4	80 x 298
11-850AJL	4 Ply	3 1/8 x 13 3/4	80 x 350



SECTION REPAIR MATERIAL & EQUIPMENT

31 Incorporated manufacturers section repair materials of only the highest quality cushion gum, coated cord, and fill rubber for the professional installer. Choose only XtraSeal quality repair materials to meet your section repair needs.

Stripping Stock*

Free flowing, quality stock for stripping edges of tread rubber to cover excess buffed surfaces. Use on sidewalls to improve appearance.

Use 14-515 or 14-516 black vulcanizing cement.

Shelf life = 3 months

Floater Gum*

A must in repairing. Use underneath patch to provide a "shock absorber" to ensure longer patch life. Special flexing rubber reduces patch edge cracking and heat build-up due to "floating action".

Use 14-515 or 14-516 black vulcanizing cement with 14-435 gum. Use 14-511 cement with 14-434 chemical gum.

Shelf life = 3 months

STRIPPING STOCK*									
Part Number	Description	Approx. Width	Approx. Gauge	Approx. We	ight per Roll				
14-430 Stripping Stoo		1 1/4" (32mm)	1/16" 1.6mm)	2 lbs.	.091kg				

FLOATER GUM*									
Part Number Description Approx. Width Approx. Gauge Approx. Weight per Roll									
14-434	Chemical Cure Only	8" (203mm)	1/32" (0.79mm)	20 lbs.	9.10kg				
14-435	Heat Cure Only	8" (203mm)	1/32" (0.79mm)	20 lbs.	9.10kg				

All Purpose Cushion Gum*

Designed for use in all types of repairing. Use in tread, sidewall and cord body filling. Excellent for buzz-outs. Replaces tread gum and innerliner gum. Use 14-515 or 14-516 black vulcanizing cement.

Shelf life = 3 months

Note:

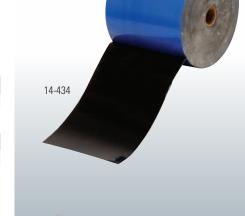
50 durometer is for SIDEWALL applications. 64 durometer is for TREAD applications.

ALL PURPOSE CUSHION GUM*									
Part Number	Approx. Width	Approx. Gauge	Approx. We	ight per Roll	Durometer				
14-449	5" (127mm)	1/8" (3mm)	1 lb.	0.45kg	50				
14-450	5" (127mm)	1/8" (3mm)	1 lb.	0.45kg	64				
14-451	18" (457mm)	1/8" (3mm)	10 lbs.	4.50kg	50				
14-452	18" (457mm)	1/8" (3mm)	10 lbs.	4.50kg	64				
14-453	18" (457mm)	1/8" (3mm)	20 lbs.	9.10kg	50				
14-454	18" (457mm)	1/8" (3mm)	20 lbs.	9.10kg	64				

TIRE ID PATCHES

Designed for side-wall installation.

	TIRE REPAIR ID PA	ATCHES	
Part Number	Description		Box Qty
11-333	Blue Triangle Section Repair ID patches	1 1/2" (38mm)	50
11-341	"Retreaded in the USA" ID patches	1" (25mm)	50





14-430

14-449 * CURING INFORMATION

Heat Chamber:

30 minutes at 280° F (138° C), 50 minutes at 260° F (127° C).

Cure Rate = 10 minutes for every 1/8" (3mm).

Spotter:

When using a cold spotter, you will have to add the manufacturer's recommended warm-up time.



11-333

11-341

Coated Nylon Cord

Use to build reinforced repairs to tires. High tensile strength tire cord calendared with high quality skim compound to a uniform gauge.

Use 14-515 or 14-516 black vulcanizing cement.

Shelf life = 1 year

Coated Aramid Cord

Extremely strong reinforcing material. Use to build reinforced repairs to tires, conveyer belting, and other types of fabric reinforced rubber goods especially in applications where it is important to minimize the gauge of the cord without compromising the strength. High tensile strength tire cord calendared with high quality skim compound to a uniform gauge.

Use 14-515 or 14-516 black vulcanizing cement.

Shelf life = 1 year

COATED NYLON CORD									
Part Number	Description	Approx. Width	Approx. Gauge	Approx. V	Veight/Roll				
14-461	Heat Cure	20" (508mm)	.045" (1.1mm)	20 lbs.	9.1 kg				
14-462	Heat Cure	20" (508mm)	.045" (1.1mm)	50 lbs.	22.7 kg				

	COATED ARAMID CORD									
Part Number	Description	Approx. Width	Approx. Gauge	Approx. W	/eight/Roll					
14-463	Heat Cure	20" (508mm)	.045" (1.1mm)	20 lbs.	9.1 kg					
14-464	Heat Cure	20" (508mm)	.045" (1.1mm)	50 lbs.	22.7 kg					

* CURING INFORMATION

30 minutes at 280° F (138° C), 50 minutes at 260° F (127° C).

14-463

Cure Rate = 10 minutes for every 1/8" (3mm).

14-461

When using a cold spotter, you will have to add the manufacturer's recommended warm-up time.

Extruder Rope

Rubber extruded in rope form especially for mini-extruder guns. For filling buzz-outs, section repairs, cuts and snags.

Use 14-515 or 14-516 black vulcanizing cement.

Shelf life = 3 months

Note: 50 durometer is for SIDEWALL applications. 64 durometer is for TREAD applications.

EXTRUDER ROPE*								
Part Number	Diameter	Approx. V	/eight/Roll	Durometer				
14-465	3/8" (10mm)	25 lbs.	11.3 kg	50				
14-466	3/8" (10mm)	25 lbs.	11.3 kg	64				

	A & B COMPOUND	
Part Number	Description	Case Qty
14-438	1 lb. (0.45 kg) A & B Compound	6 sets

* CURING INFORMATION

30 minutes at 280° F (138° C), 50 minutes at 260° F (127° C).

Cure Rate = 10 minutes for every 1/8" (3mm).

When using a cold spotter, you will have to add the manufacturer's recommended warm-up time.



A & B Compound

Use for chemical cure spot repairs and repairs to other industrial products. A two part, A and B putty. These materials, when kneaded together in equal portions, begin to cure chemically at room temperature.

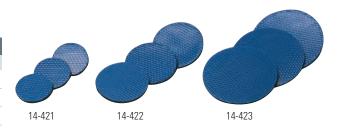
Shelf life = 6 months.

Penny Patch Nail Hole Repairs for Retreaders*

Use 14-515 or 14-516 black vulcanizing cement.

Shelf life = 3 months

PENNY PATCHES			
Part Number	Description	Size	Box Qty
14-421	Reinforced	1" (25mm)	100
14-422	Reinforced	1 1/2" (38mm)	100
14-423	Reinforced	2" (50mm)	100



14-465

LINCOLN VULCANIZING EQUIPMENT

The full line of Lincoln vulcanizing equipment, replacement parts, and accessories is available. Ask for details.

14-LMC200 **Tube Plate Vulcanizer**

- Economical and easy to use.
- Heat unit with snap-type thermostat reaches curing temperature fast.
- Detachable flat plate for vulcanizing valve stems.

14-LMC400B

Truck Tire Vulcanizer

- Lightweight, tubular steel frame (easy to handle).
- Faster travel, Acme thread handwheel screw.
- Larger capacity frame allows repairs in tires thru 12.00 cross section.
- High performance heat units feature platen mounted preset (European approved) thermostats which reduces heat-up time to 5 minutes.



14-LMC200

T150: Optional 8 Plate Set T038: Replacement Bottom Heat Unit T039: Replacement Upper Heat Unit

14-LMC2000

Air Operated Truck Tire Vulcanizer

- The ultimate flexibility in tire repair!
- The only spotter in the market that handles tread, shoulder, and sidewall repairs on all kinds of tires from low profile to super singles. Easily adapts to future tire sizes simply by changing the contour plates.
- Patented piston/pad system for expert repairs even by novice operators.
- Inside-outside heat system.
- Spring loaded mechanical pressure with solid heat units for tread and shoulder repairs.
- Extremely economical No expensive air bags to replace.
- Optional large-capacity stand supports both tire and vulcanizer with dual 16" rollers for easy tire rotation.

14-LMC2000

T156: Optional 9 Plate Set

14-LMC1000

Large Truck-Tractor Vulcanizer

- Spring loaded lower heat unit maintains even pressure throughout the curing process eliminating frequent re-tightening of heat units.
- Lower telescoping assembly slides back for quick mounting or removal of spotter then locks into position for use.
- Acme threaded adjusting screw for upper heat unit.
- Solid one-piece frame is easy to handle and weighs only 30 lbs.
- 3 5/16" diameter round heat units fit into close guarters for small repairs yet have wattage output to handle adapter plates for large repairs.
- Use for spot and section repairs in all truck, tractor, and many off road tires.



	LINCOLN VULCANIZING EQUIPMENT						
Part Number	Description	Curing Heads	Throat Depth	Throat Height	Throat Height B	Voltage Options	Shipping Weight
14-LMC200	Tube Plate Vulcanizer	1 – 4" x 6" (10.2 x 15.2cm)	6" (15cm)			120V or 240V	27 lbs. (12.3kg)
14-LMC400B	Truck Tire Vulcanizer	2 - 3 5/16" (8.4cm)	6.25" (15.8cm)	9.75" (24.7cm)	15.375" (39cm)	115V or 230V	14 lbs. (6.4 kg)
14-LMC2000	Air Operated Truck Tire Vulcanizer	3 – 6" (15.2cm)	11.5" (29.2cm)	24.5" (62.2cm)		120V or 240V	74 lbs. (33.6 kg
14-LMC1000	Large Truck-Tractor Vulcanizer	2 – 3 5/16" (8.4cm)	14.5" (36.8cm)	16" (40.6cm)		120V or 240V	30 lbs. (13.6 kg

REGROOVERS & HEAT KNIVES

14-470 PS15 Standard® Regroover

This high quality regroover has the rugged reliability of the more sophisticated PS15 Truckstar. The PS15 Standard® is an excellent basic regroover featuring a dial knob heat control with 4 heat presets, large cutting head, comfortable, ergonomically designed handle, and has a 370 watt transformer. A safety feature prevents the block assembly and blade from heating up until contact is made when regrooving begins.



14-470T PS15 Truckstar Plus® Regroover

The PS15 Truckstar Plus[®] is a more sophisticated regrooving unit with a large cutting head, and a comfortable, ergonomically designed handle. The digital heat control keys, which have now been integrated into the new electronic board, make the unit more reliable and allows the heat output to be regulated at close to 1%. The 500 watt transformer of the PS15 Truckstar Plus® makes regrooving easier by saving the operator time and energy as the blade slips easily through the rubber. A safety feature prevents the block assembly and blade from heating up until contact is made when regrooving begins.



14-470OTR **PS15 OTR® Regroover**

The PS15 OTR® is designed specifically for regrooving off road and heavy equipment tires. This unit features a dial knob heat control with 5 heat presets, large cutting head, and comfortable, ergonomically designed handle. With its 1000 watt transformer and heavy duty cables, this unit easily handles intensive regrooving with R5, C5, and C6 large blades. A safety feature prevents the block assembly and blade from heating up until contact is made when regrooving begins.



- Our blades can be fitted to any regroover •
- Any regrooving blades can be fitted to our regroovers

14-478 **HC1000 Heat Knife**

The HC1000 Heat Knife is designed for cutting rubber and plastics. The digital heat controls allow regulation of the heat output of the 370 watt transformer at close to 1%. The blade heats up only when the operators hand is in contact with the metallic key on the handle of the tool.



REGROOVER REPLACEMENT PARTS & ACCESSORIES

14-474S

Regroover Blades • Very high quality due to our exclusive double **REPAIR**tips sharpening system on a specific steel. Our blades can be fitted to any regroover. ROUND Any regrooving blades can be fitted to our regroovers. 14-473 14-474 14-475 14-471 14-472 SQUARE

14-475S

RE	REGROOVER BLADES - ROUND				
Part Number	Description	Cutting Width (mm)	Box Oty		
14-471	#1 Round Blade (R1)	3-5mm	20		
14-472	#2 Round Blade (R2)	5-11mm	20		
14-473	#3 Round Blade (R3)	7-13mm	20		
14-474	#4 Round Blade (R4)	9-16mm	20		
14-475	#5 Round Blade (R5)	11-18mm	20		

14-473S

14-472S

14-471S

RE	REGROOVER BLADES – SQUARE			
14-471S	#1 Square Blade (C1)	3-5mm	20	
14-472S	#2 Square Blade (C2)	6-10mm	20	
14-473S	#3 Square Blade (C3)	8-12mm	20	
14-474S	#4 Square Blade (C4)	10-14mm	20	
14-475S	#5 Square Blade (C5)	12-17mm	20	
14-476S	#6 Square Blade (C6)	20-28mm	10	

REGF	ROOVER PARTS & ACCESSORIES
Part Number	Description
14-470B	Replacement Block Assembly for 14-470
14-470TB	Replacement Block Assembly for 14-470T
14-470H	Handle / Cord Assembly for 14-470
14-470TH	Handle / Cord Assembly for 14-470T
14-470-1	Allen Wrench for 14-470
14-470-2	Wood Handle Wrench for 14-470T
14-470-3	Replacement Switch for 14-470
14-470-4	Power Cord for 14-470T
14-470-5	Brass Wedge Set for Block Assembly
14-470-6	Blade Screw Set for Block Assembly
14-470-7	Regroover Blade Depth Gauge
14-470-8	Yellow Replacement Cable

HEAT KNIFE BLADES			
Part Number	Description	Box Qty	
14-471H	#1 Heat Knife Blade	5	
14-472H	#2 Heat Knife Blade	5	
14-473H	#3 Heat Knife Blade	5	

Regroover Replacement Parts & Accessories

14-476S





(5/32" to 11/32")



XTRASEAL | TIRE SERVICE CHEMICALS



We manufacture the widest array of tire service chemicals in the industry today. Most chemicals are available in 1, 5 and 55 gallons. Ask for details.

TIRE REPAIR CHEMICALS

Vulcanizing Cement

- Our most popular, fast drying cement
- For chemical or heat vulcanization.
- For use with any XtraSeal repair unit or insert

	VULCANIZIN	IG CEMENT	
Part Number	Size		Case Oty
14-004	4 oz. (118ml)	Flammable	12
14-008	8 oz. (236ml)	Flammable	24
14-032	32 oz. (945ml)	Flammable	12
14-513	8 oz. (236ml)	Non-Flammable	24
14-514	32 oz. (945ml)	Non-Flammable	12

Heavy-Duty Super-Blu Vulcanizing Cement

Contains more rubber solids than our regular cement for a stronger bond.

	IEAVY-DUTY VULCANIZIN		
Part Number	Size		Case Oty
14-511	8 oz. (236ml)	Flammable	24
14-512	32 oz. (945ml)	Flammable	12



14-004



14-128A

Black Retreader's Cement

For use in heat vulcanizing only (not for chemical vulcanization).

BLA	BLACK RETREADER'S CEMENT				
Part Number	Size		Case Oty		
14-515	32 oz. (945ml)	Flammable	12		
14-516	32 oz. (945ml) Heavy Duty	Flammable	12		

Inner Liner Sealer

For sealing the over-buff area around a finished repair.

INNER LINER SEALER			
Part Number	Size		Case Oty
14-128A	16 oz. (472ml)	Flammable	12

Bead "BUSTR"

Penetrates to helps free stubborn beads from the wheel making demounting easier.

BEAD "BUSTR"			
Part Number	Size		Case Oty
14-771	32 oz. (945ml)	Flammable	12
14-772	1 Gallon (3.8L)	Flammable	4

Rubber Prep

For removing dirt, debris and mold lubricants from the repair area prior to buffing.

RUBBER PREP PRE-BUFF SOLUTION				
Part Number	Description	Size		Case Oty
14-100	Rubber Prep	32 oz. (945ml)	Flammable	12
14-100GAL	Rubber Prep	1 Gallon (3.8L)	Flammable	4
14-102	Rubber Prep	16 oz. Aerosol	Non-Flammable	12
14-103	Rubber Prep	16 oz. Aerosol	Flammable	12
14-490	Rubber Prep	32 oz. (945ml)	Non-Flammable	12

RUBBER PREP 14-100

Bead Sealer

For sealing small air leaks between the tire bead and the wheel.

BEAD SEALER				
Part Number	Description	Size		Case Oty
14-101	Bead Sealer (Standard)	32 oz. (945ml)	Flammable	12
14-101A	1X Heavy Duty Bead Sealer	32 oz. (945ml)	Flammable	12
14-101B	2X Heavy Duty Bead Sealer	32 oz. (945ml)	Flammable	12
14-101GAL	Bead Sealer (Standard)	1 Gallon (3.8L)	Flammable	4
14-104	Bead Sealer (Standard)	5 Gallons (18.9L)	Flammable	1
14-104A	1X Heavy Duty Bead Sealer	5 Gallons (18.9L)	Flammable	1

	OTHER XTRASEAL SOLUTIONS				
Part Number	Description	Size	Case Oty		
14-550	Tire Talc in Sifter Can	1 lb. (0.45kg)	12		
14-760	Air Tool Oil	32 oz. (945ml)	12		
14-154	Black Tire Paint, Water Based Ready-To-Use for Spray or Brush Applications	5 Gallon (19L)	-		
14-156	Black Tire Paint Concentrate (Water Based)	5 Gallon (19L)	_		



14-101

APPEARANCE CHEMICALS

TIRE CLEANING SOLUTIONS				
Part Number	Description		Mix with Water Ratio	Case Qty
14-754	Whitewall Cleaner	32 oz. (945ml)	Mix 1:1	12
14-754GAL	Whitewall Cleaner	1 Gallon (3.8L)	Mix 1:1	4
14-758	Shine-All Protectant	32 oz. (945ml)	Ready to Use	12
14-758GAL	Shine-All Protectant	1 Gallon (3.8L)	Ready to Use	4

XTRASEAL APPEARANCE CHEMICAL					
Part Number	Description		Mix with Water Ratio	Case Oty	
14-765	Liquid Car Wash	1 Gallon (3.8L)	128:1	4	
14-756	Summer Service Island Window Cleaner Concentrate	1 Gallon (3.8L)	10:1	4	
14-757	Winter Service Island Window Cleaner Concentrate	1 Gallon (3.8L)	6:1	4	
14-767	Super Clean Glass Window Cleaner Concentrate	1 Gallon (3.8L)	128:1	4	

Most chemicals are available in 1, 5 and 55 gallons.





TIRE MOUNTING / DEMOUNTING COMPOUNDS & ACCESSORIES

To prevent damage to tire beads and to ease the mounting and demounting process, choose the compounds used by tire professionals worldwide.

Euro-paste

A wax paste lubricant that works great with low pro, run flat, and alloy wheel applications.

- Very slippery
- Dries tacky
- No mixing
- · Rust inhibitors
- No water



14-699 8.75" dia x 4.75" tall



14-700 7.50" dia x 6.00" tall



14-701 8.75" dia x 7.50" tall

EURO-PASTE				
Part Number		Description	Case Oty	
14-699	6 1/2 lb. (3kg)	XtraSeal Euro-Paste, White in Low-Profile Bucket	4	
14-700	6 1/2 lb. (3kg)	XtraSeal Euro-Paste, White	4	
14-701	11 lb. (5kg)	XtraSeal Euro-Paste, White	4	
14-705	6 1/2 lb. (3kg)	XtraSeal Euro-Paste, Blue	4	
14-706	11 lb. (5kg)	XtraSeal Euro-Paste, Blue	4	
14-700E	6 1/2 lb. (3kg)	Econo-Paste, White	4	
14-701E	11 lb. (5kg)	Econo-Paste, White	4	







14-706 8.75" dia x 7.50" tall











14-751



14-753PM

Mounting/Demounting Compound

A vegetable base compound with rust inhibitors which greatly reduces the chance of bead damage.

- Great for packing beads
- For use with all types of tires
- Biodegradable
- Can be mixed with water 1.5 lbs for one gallon
- Economical

MOUNTING/DEMOUNTING COMPOUND					
Part Number	De	Case Oty			
14-708E	8 lb. (3.64kg)	XtraSeal	4		
14-725E	25 lb. (11.36kg)	XtraSeal	1		
14-708	8 lb. (3.64kg)	MURPHY'S	4		
14-725	25 lb. (11.36kg)	MURPHY'S	1		
14-740	40 lb. (18.18kg)	MURPHY'S	1		

Liquid Mount/Demount Lubricants

Ready to use and lube packet concentrate.

- Xtra-Slik is ready to use
- Dries quickly
- Prevents slippage on the bead
- Rust inhibitor
- 14-751 lube concentrate packet makes one gallon
- Economical

DUNTING/DEI	MOUNTING LUB	RICANT
De	scription	Case Qty
13 oz. (386ml)	Mix with 1 Gallon Water	10
32 oz. (945ml)	Ready to Use	12
1 Gallon (3.8L)	Mix 4:1 with Water	4
1 Gallon (3.8L)	Ready to Use	4
	13 oz. (386ml) 32 oz. (945ml) 1 Gallon (3.8L)	1 Gallon Water 32 oz. (945ml) Ready to Use 1 Gallon (3.8L) Mix 4:1 with Water



No Rim Rust Black Mounting/Demounting HD compounds

A vegetable base compound with rust inhibitors which greatly reduces the chance of bead damage.

- Increased rust inhibitors for truck rims
- Lubricates beads with thick viscosity
- Premium formula
- Used by many national fleets to reduce rim expense

NO RIM RUST					
Part Number	Description Case Qty				
14-748E	5 lb. (2.27kg)	XtraSeal	6		
14-749E	25 lb. (11.36kg)	XtraSeal	1		
14-748	4 1/2 lb. (2.05kg)	Freylube	6		
14-749	25 lb. (11.36kg)	Freylube	1		

Mounting / Demounting Accessories

APPLICATORS			
Part Number	Description		
14-378	11" (279mm) Cotton Tire Swab		
14-378L	15" (381mm) Cotton Tire Swab		
14-711	Euro-Paste Applicator Brush, 1" Diameter		
14-712	Small Applicator Brush, 1 1/2" Diameter		
14-713	Large Applicator Brush, 2" Diameter		



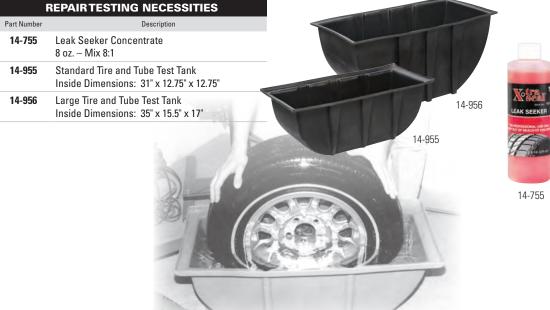


14-749E	14-749









PUNCTURE REPAIR | INSERTS



Lead-Wire Inserts

- For use in radial and bias ply tires
- Dipped or wrapped with vulcanizing gum
- Designed for chemical or heat vulcanization

LEAD-WIRE INSERTS - DIPPED STEM						
Old Part Number	Injury Size	Box Oty	Case Oty	Carbide		
13-621	3/16" (4.5mm)	20	10	14-345		
13-620	1/4" (6mm)	20	10	14-346		
13-622	5/16" (8mm)	20	10	14-347		
13-623	3/8" (10mm)	20	10	14-348		
	Old Part Number 13-621 13-620 13-622 13-623	Old Part Number Injury Size 13-621 3/16" (4.5mm) 13-620 1/4" (6mm) 13-622 5/16" (8mm) 13-623 3/8" (10mm)	Old Part Number Injury Size Box Ωty 13-621 3/16" (4.5mm) 20 13-620 1/4" (6mm) 20 13-622 5/16" (8mm) 20 13-623 3/8" (10mm) 20	Old Part Number Injury Size Box Qty Case Qty 13-621 3/16" (4.5mm) 20 10 13-620 1/4" (6mm) 20 10 13-622 5/16" (8mm) 20 10 13-623 3/8" (10mm) 20 10		

	LEA	D WIRE INSERTS	S – WRAF	PPED	
12-412C	13-621C	3/16" (4.5mm)	20	10	14-345
12-413C	13-620C	1/4" (6mm)	20	10	14-346
12-414C	13-622C	5/16" (8mm)	20	10	14-347
12-415C	13-623C	3/8" (10mm)	20	10	14-348



Pull Thru Inserts

- Dip coated with premium blue vulcanizing gum
- For use in radial and bias ply tires
- Designed for chemical or heat vulcanization
- Install using 14-200 wire puller

	PULL-THRU	INSER	rs	
Part Number	Injury Size	Box Qty	Case Oty	Carbide Cutter
13-632	3/16" (4.5mm)	20	10	14-346
13-633	5/16" (8mm)	20	10	14-347
13-634	3/8" (10mm)	5	10	14-348
13-635	9/16" (14mm)	5	10	14-349
13-636	3/4" (19mm)	5	10	_
13-637	1" (25mm)	5	10	_
13-638	1 1/4" (31mm)	5	10	_
14-200	Wire Installation Tool for 13-632 - 13-638	1	_	_

X-tra Smooth Inserts

• Install 1/4" inserts using 12-101 or 12-241 insert gun

	X-TRA SMOOTH I	NSERTS			
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Qty
12-100	X-tra Smooth Plug Kit, Contains: 1 ea. 12-101, 1 can 12-107, 1 can 14-008, 1 ea. 14-211			1 Kit	6
12-101	X-tra Smooth Plug Insert Gun			-	_
12-103	Cleaning Brush for 12-101 Plug Gun			-	-
12-107	1 3/8" Orange Vulcanizing Insert	1/4	6	50	24
12-107L	1 7/8" Orange Vulcanizing Insert	1/4	6	30	24

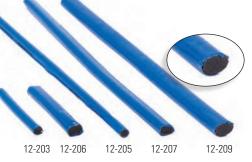




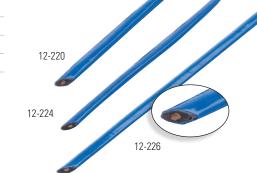
Gray Gum Poly Wrapped Inserts

• Install using any open-eye needle

	GRAY GUM POLY V	VRAPPED I	INSERTS	5	
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
12-203	2" Round Insert, (50mm)	3/16	5	20	24
12-205	8" Round Insert, (203mm)	3/16	5	20	10
12-206	2" Oval Insert, (50mm)	1/4 x 5/16	6 x 8	20	24
12-207	8" Oval Insert, (203mm)	1/4 x 5/16	6 x 8	20	10
12-209	8" Lg. Oval Insert, (203mm)	5/16 x 7/16	8 x 11	10	10







Fibre-Seal Inserts



- Designed for chemical vulcanization
- Rubber with fiber core wrapped in gray gum and blue poly
- Install using any split-eye needle

	FIBRE-SEA	AL INSERTS	;		
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
12-221	Fibre-Seal Kit Contains: 1 box 12-220, 1 can 14-008, 1 1 ea. 14-216, 15 ea. 11-311, 1		t	1 Kit	6
12-220	Fibre-Seal Insert	3 3/4	95	50	10
12-224	Fibre-Seal Insert	5 1/4	133	40	10
12-226	Fibre-Seal Insert	7 1/2	190	25	10

Vulcanizing Inserts





• Install using any split-eye needle



	VULCANI	ZING INSERT	'S		
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
12-222	Vulcanizing Inserts	3 3/4	95	50	10

Fiber-Fill Inserts



- For use in radial and bias ply tires
- For chemical vulcanization
- Install using any split-eye needle

	FIBER-FIL	L INSERTS			
Part Number	Description	Size (inches)	Size (mm)	Box Qty	Case Oty
12-218	1/8" Insert, Red Poly	3 7/8	98	50	10
12-218-5.25	1/8" Insert, Red Poly	5 1/4	133	50	10
12-218-7.50	1/8" Insert, Red Poly	7 1/2	190	50	12
12-219	1/4" Insert, Blue Poly	3 7/8	98	50	10
12-219-5.25	1/4" Insert, Blue Poly	5 1/4	133	50	10
12-219-7.50	1/4" Insert, Blue Poly	7 1/4	190	50	12





Bowtie and Sawtooth Style Inserts

- For use in radial and bias ply tires
- Designed for chemical vulcanization
- Install using any open-eye needle



	BOWTIE AND SAV	VTOOTH ST	YLE INSI	ERTS	
Part Number	Description	Size (inches)	Size (mm)	Box Oty	Case Oty
12-311	3-Ply Sawtooth	2 3/8 x 1/4	60 x 6	50	24
12-312	3-Ply Sawtooth	2 3/8 x 1/2	60 x 13	25	24
12-331	5-Ply Bowtie, Orange	2 1/4 x 3/8	57 x 10	50	24
12-332	5-Ply Bowtie, Black	3 1/8 x 5/8	70 x 16	25	24



XtraSeal Wedge™ Inserts

• Specially designed to repair any injury (small, medium, or large) up to 1/4" in diameter

• Two plies of highly elastic black rubber with three plies of premium blue vulcanizing gum make this the ideal repair

- For use in radial and bias ply tires
- Designed for chemical vulcanization
- Install as directed using any split-eye needle
- Illustrated instructions in every box

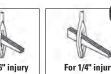
How to use the Wedge™ most effectively:

Part Number 12-333

12-335











	XTRASEAL WED	GE™ INSEI	RTS		
r	Description	Size (inches)	Size (mm)	Box Qty	Case Qty
	XtraSeal Wedge™	2 1/4 x 3/8	57 x 10	50	24
	XtraSeal Wedge™ Kit , Contains: 2 boxes 12-333, 1 can 14-008, 1 ea. 14-204, 1 ea. 14-216			1 Kit	8



- 12-234 and 12-239 are temporary repairs sealing by compression only
- 12-213 and 12-214 will vulcanize chemically or in a heat curing system
- Install using 12-241 insert gun











12-241

12-333

		1 Kit	6	
5/16	8	25	24	
7/16	11	15	24	
5/16	8	25	24	
7/16	11	15	24	
		1	20	
		1		
		1		



MUSHROOM STYLE INSERTS

UNIVERSAL STRING-TYPE INSERTS

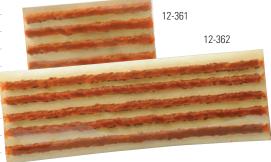
Universal string-type Inserts are an excellent emergency repair when a full service repair facility is unavailable. Made of a butyl rubber, these inserts are very strong, allowing easy insertion through steel belted radials. Perfect for repairing lawn tractor, golf cart, ATV, and other off-road tires.

- Temporary repairs sealing by compression only
- For use in radial and bias ply tires
- Excellent for golf carts, lawn mowers, and ATV's
- Install 12-370 and 12-371 using any closed-eye needle
- Install all other string type inserts using any split-eye needle

31 Inc. does NOT recommend "on the wheel" tire repairing. All XtraSeal inserts perform the function of filling the injury as recommended by the RMA and other industry associations.

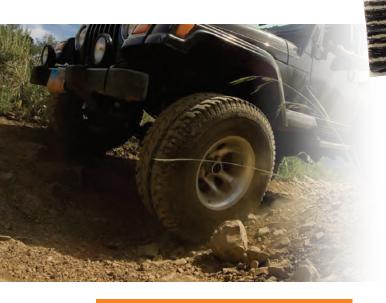
See page 126 of this catalog for illustrated industry recommended repair procedures.





12-370

12-371





12-350

ACCESSORIES FOR STRING-TYPE INSERTS

Part Number Description 12-350 Lubricant for String-Type Inserts 12-351 Knife for String Kits

12-351

EMERGENCY REPAIR KITS

31 Inc. offers the most extensive range of **string-type repair kits** on the market today. Options extend from value-economical to commercial strength quality and dependability. Each kit includes 31 Inc. genuine manufactured string-type inserts famous for strength and durability.

Universal String-Type Repair Kits

- Includes 31 Inc. genuine 12-361 or 12-362 stringtype inserts
- Temporary repairs seal the injury by compression
- Great for emergency repair whenever a full-service facility is not immediately available
- Excellent for golf carts, lawn tractors, ATV, and other off-road tire applications

HEAVY DUTY COMPO	OSITE SERIES	
Description		Case Qty
Premium Passenger Kit	50 pcs. 12-361	6
Premium Truck Kit	25 pcs. 12-362	6
	Description Premium Passenger Kit	Premium Passenger Kit 50 pcs. 12-361

HEAVY DUTY COMPOSITE KITS ALSO INCLUDE

1 ea. 14-219, 1 ea. 14-221, 1 ea. 14-217R, 1 jar lubricant, 1 razor knife and repair guide



12-353

	HEAVY DUTY METAL SE	RIES	
art Number	Description		Case Qty
12-355	HD Passenger Kit – Metal T-Handles	E0 mag 12 261	6
12-356	HD Passenger Kit – Chrome T-Handles	50 pcs. 12-361	6
12-357	HD Truck Kit – Metal T-Handles	25 12 202	6
12-358	HD Truck Kit – Chrome T-Handles	25 pcs. 12-362	6
	METAL HANDLED KITS ALSO INCLUDE 1 ea. 14-217, 1 ea. 14-218, 1 ea. 14-217R, 1 jar lubricant, 1 razor knife and repair guid CHROME HANDLED KITS ALSO INCLUDE 1 ea. 14-317, 1 ea. 14-317S, 1 ea. 14-317R, 1 jar lubricant, 1 razor knife and repair guid		

Metal T-Handles

POLY TOTE SERIES Part Number Description Case Qty 12-361TOTE Passenger String Tote Kit 50 pcs. 12-361 10 12-362TOTE Truck String Tote Kit 25 pcs. 12-362 10

STRING-TYPE POLY TOTES ALSO INCLUDE

1 ea. 14-204, 1 ea. 14-216, 1 jar lubricant, 1 razor knife and repair booklet



TOOLBOX SERIES				
Part Number	Description		Case Qty	
12-361KIT	Passenger String Toolbox Kit	50 pcs. 12-361	6	
12-362KIT	Truck String Toolbox Kit	25 pcs. 12-362	6	

STRING TOOLBOX KITS ALSO INCLUDE

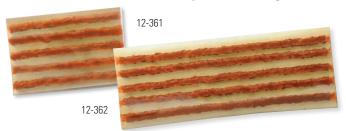
12-361, 1 can 14-008, 1 ea. 14-204, 1 ea. 14-216, 15 pcs. 11-311 and repair booklet



POLY TOTES 12-361TOTE shown

ALL KITS FEATURE GENUINE 31 INC. MANUFACTURED INSERTS

Quality known worldwide. Famous for durability and strength.



31 Inc. does NOT recommend "on the wheel" tire repairing. All XtraSeal inserts perform the function of filling the injury as recommended by the RMA and other industry associations.

See page 126 of this catalog for illustrated industry recommended repair procedures.







See page 41 for tools!

TIRE & WHEEL SERVICE | TOOLS & ACCESSORIES



In order to effectively complete the job, technicians must have the right tools in place. 31 Inc. offers a system of tools and accessories engineered for the application of XtraSeal tire repair materials.



Heavy-Duty Tire Spreader

- Simple & Durable Design Makes Tire Service **Faster And Easier**
- Heavy Duty Steel Construction
- Industrial Strength Hardware
- Sturdy & Effective Assembly (no unnecessary swivel and tilt wobble)
- Extra-Large Floor Plate
- Balanced Free-Standing Usage

SPREADER MECHANISM INCLUDES

- Claw height adjustment for stabilizing low-profile tires
- · Locking pin secures claw arms in place
- Adjustable range to handle all passenger and light truck tires
- Larger dual roller-pin assembly



TIRE SPREADERS AND ACCESSORIES		
Part Number	Description	
14-987	Heavy Duty Tire Spreader	
14-987-1	Supply Management Upgrade Kit	
14-987-4	Light Bracket for 14-924 Work Lamp	
14-988	M-1 Style Manual Truck Tire Spreader	
14-989	Top Post Mounting Passenger Tire Spreader	
14-989A	Rim Clamp Adapter Plate for Top Post Spreader	



14-989A





R HANDS-FREE LIGHTING DURING TIRE SERVICE AND OTHER WORK APPLICATIONS

14-921 **Tire Service LED Work Light**

With Lithium-Ion **Rechargeable Battery** • 12" Adjustable Sprint-Tube for Optimum Light **Positioning within Tight Spaces**

- Compact High-Power LED Light provides up to 300 LUX for Intense Focus and Optimum Visibility
- Clamp-On Handle Quickly and Easily "Grips" Over the **Bead of a Tire for Complete Hands-Free Light Assistance**
- Multiple High-Power Magnets on the Handle and Light **Head to Easily Attachment to most Metal Surfaces**
- Unique Design Provides Unlimited Vehicle **Service and Work Applications**
- Lithium-Ion Rechargeable **Battery Included**



• Compatible with passenger, light truck and commercial truck tires

• Compatible with all tire spreaders





14-921



Provides an enhanced lighting solution for a proper and efficient tire repair process.

- 8W COB LED provides 650 lumens, 750 lux at 1m
- Illumination angle 90°
- Stays cool to the touch
- Adjustable flexible gooseneck 500mm (19.6")





14-987-4 **Light Bracket**

Attaches the 14-924, LED work light, securely to the 14-987 tire spreader.



ALLTHE SMALLTOOLS
NEEDED FOR PASSENGER
& LIGHTTRUCK REPAIR

14-298 Puncture Repair Tool Kit

- Sturdy, blow-molded case keeps everything organized and get the carbide!
- Also Includes:

RMA Wall Chart & XtraSeal Puncture Repair Guide/Catalog

> UCTOS Y PROCEDIMIENTOS PARA REPARAR LLANTAS RODUITS ET PROCÉDURES DE RÉPARATION DE PNEUS

PUNCTURE REPAIR TOOL KIT

CONTENTS		
Part Number	Description	
14-315H	Inner Liner Scraper	
14-303P	1/8" Stickle Back Probe	
14-310A	Power-Awl	
14-554	White Markall Paint Stick	
14-305	Flexible Skiving Knife	
14-314	Stitcher	
14-301	Brass Brush	
14-320	2 1/2" Buffing Wheel	
14-330	Quick Change Adapter	
14-345	Carbide Cutter – 3/16" Injury	
14-346	Carbide Cutter – 1/4" Injury	
14-333	Quick Change Adapter	
14-334	Quick Change Adapter	
14-204	Spiral Cement Probe	
	14-315H 14-303P 14-310A 14-554 14-305 14-314 14-301 14-320 14-330 14-345 14-346 14-333 14-334	



ALSO





14-217

14-307

14-317

14-238

TIRE REPAIR TOOLS

A tire repair can only be successful if the technician is well equipped to do the job. For this reason, we offer the largest selection of quality tire repair

14-216

tools in the industry today.



14-219 **Heavy Duty Composite Insert Tool**

- XL Pistol Grip Design, Weighted **Handle with Metal Core**
- Composite Plastic and **Rubber Grip - Maxi-Effective**
- Replaceable Needle



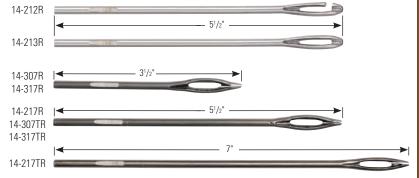
OPEN-EYE NEEDLE			
Part Number	Description		
14-212	14-212 Pistol-Grip Open-Eye Needle		
14-312T	Open-Eye Needle, 5 7/8" needle		
14-312THD	Open-Eye Needle, 7 5/8" needle		



CLOSED-EYE NEEDLE		
Part Number	Description	
14-213	Pistol-Grip Closed-Eye Needle	
14-313T	Closed-Eye Needle, 7 7/8" needle	

REPLACEMENT NEEDLES		
Part Number Description		
14-212R Open-Eye Needle for 14-217H		
14-213R	Closed-Eye Needle for 14-217H	
14-217R	Split-Eye Needle for 14-217H, Passenger	
14-217TR	Split-Eye Needle for 14-217H, Truck	
14-307R	Split-Eye Needle for 14-307, Passenger	
14-307TR	Split-Eye Needle for 14-307, Truck	
14-317R	Split-Eye Needle for 14-317, Passenger	
14-317TR	Split-Eye Needle for 14-317, Truck	





Performing a quality tire repair begins with using the right tools. Whether you are performing a small puncture repair or a larger

section repair, we make available a wide range of quality pneumatics and accessories to do the job right.

14-326K 1/2" Heavy Duty **Reversable Air Drill**

• Delivers High-Torque **Performance at Low Speed**

- 1/2" Key-Lock Chuck
- 1 Button Forward/Reverse Toggle Switch
- Dual Grip Side Handle with **Vibration Dampening Handle Grip**
- Whip Hose with Sound Reduction **Exhaust Boot**
- 800 RPM Free Speed



- Quick-Change Disconnect Adapter Chuck
- Safety Lock-Throttle with Variable **Speed Control**
- Adjustable Hang Tab
- Whip Hose with Sound Reduction **Exhaust Boot**
- 2500 RPM Free Speed



Any tool in need of repair outside of this warranty period can be repaired for a nominal charge.

Part Number	Description	
14-318H	24" x 3/8" Swivel Hose, 1/4" NPT	_
14-318R	In-Line Air Regulator, 1/4" NPT	
14-318S	3/8" Barbed Swivel, 1/4" NPT	K
14-329	Exhaust Hose Kit, 1/4" NPT	- 4
14-760	Air Tool Oil, 32 oz.	
15-5324	Premium Hybrid Whip Hose – 24"	
15-5336	Premium Hybrid Whip Hose – 36"	







14-329



14-399





14-319LST

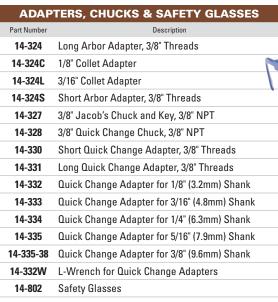
14-319LS

14-325

14-760

15-5336

14-327



14-802 14-328 14-330 14-331 14-332 14-333 14-334 14-335 14-335-38 14-332W 14-324S 14-324 14-324C 14-324L

CARBIDE BURRS FORTIRE REPAIR

Maximum recommended operating speed = 1,200 rpm

			-
Part Number	Injury Size	Overall Length	Q.C. Adapter
14-340 1/8" (3mm) Injury		3"	14-332
14-345	3/16" (4.5mm) Injury	3"	14-333
14-346	1/4" (6mm) Injury	3"	14-334
14-347	5/16" (8mm) Injury	4"	14-335
14-348	3/8" (10mm) Injury	4 1/2"	14-335-38
14-349	1/2" (13mm) Injury	5"	14-335-38



CARBIDE BURRS FOR SECTION REPAIR			
Part Number	Description	Q.C. Adapter	
14-341	1/4" (6.3mm) Barrel Burr	14-334	
14-342	1/2" (12.7mm) Ball Burr	14-334	
14-343	1/8" (3.2mm) Pointed Burr	14-332	
14-344	1/4" (6.3mm) Pointed Burr	14-334	



BUFFING WHEELS

Maximum recommended operating speed = 5,000 rpm

Part Number	Description	Arbor Hole
14-320	2 1/2" Buffing Wheel, BC-1	3/8" (9.5mm)
14-320S	2" Buffing Wheel, BC-2	3/8" (9.5mm)
14-339	Back-to-Back 14-320 Wheels	3/8" (9.5mm)
14-359	2" Dome Buffing Wheel, 60 Grit	3/8" – 24 Thread
14-360	2" Black finishing cup, 60 Grit	3/8" (9.5mm)



SILVER CARBIDE BUFFING WHEELS

Maximum recommended operating speed = 5,000 rpm

Part Number	Description	Arbor Hole
14-364	2" Dome, 170 SSG (60 Grit)	3/8" – 24 Thread
14-365	2 1/2" Cup, 170 SSG (60 Grit)	3/8" (9.5mm)
14-367	2 1/2" Cup, 230 SSG (36 Grit)	3/8" (9.5mm)
14-368	4" Cup, 390 SSG (16 Grit)	3/4" (19mm)



WIRE BRUSHES

IVI	iximum recommenueu operating spee	a = 5,000 rpm
Part Number	Description	Arbor Hole
14-321	2 1/2" Coarse Wire Wheel	3/8" (9.5mm)
14-321\$	2" Coarse Wire Wheel	3/8" (9.5mm)
14-322	3" Soft Wire Wheel	3/8" (9.5mm)
14-323 2" Plastic Encased Wheel		3/8" (9.5mm)
14-336	3/8" Skiving Brush	1/4" Shank
14-337	1/2" Skiving Brush	1/4" Shank



OXIDE STONES

For use in high speed grinders to grind steel cables. Maximum recommended operating speed = 20,000 rpm

ivia	Alliiuiii I	ecommenueu operaung speeu = 20	,000 ווון ו
Part Number		Description	Shank Diameter
14-353	A-1	Large Pencil Stone, White	1/4" (6.3mm)
14-353B	A-1	Large Pencil Stone, Brown	1/4" (6.3mm)
14-354	A-15	Small Pencil Stone, White	1/4" (6.3mm)
14-354B	A-15	Small Pencil Stone, Brown	1/4" (6.3mm)
14-355	14-355 A-36 1 5/8" Lg. Mush White		1/4" (6.3mm)
14-355B	A-36	1 5/8" Lg. Mushroom Stone, Brown	1/4" (6.3mm)
14-356	A-37	1 1/4" Sm. Mushroom Stone, White	1/4" (6.3mm)
14-356B	A-37	1 1/4" Sm. Mushroom Stone, Brown	1/4" (6.3mm)



ROUND FACED BUZZOUT WHEELS

	Maximum recomm	nended operatin	ng speed = 5,000 i	rpm
Part Number	Diameter	Width	SSG (Grit)	Arbor Hole
14-371	1 3/8" (35mm) Ro	tor Saw	330 (16 Grit)	1/4" Shank
14-373	7/8" (22mm) Ball		390 (16 Grit)	1/4" Shank
14-374	2" (51mm)	1/4" (6mm)	230 (36 Grit)	3/8" – 24 Thread
14-374A	2" (51mm)	1/4" (6mm)	390 (16 Grit)	3/8" – 24 Thread
14-375	2" (51mm)	3/8" (9mm)	230 (36 Grit)	3/8" – 24 Thread
14-375A	2" (51mm)	3/8" (9mm)	390 (16 Grit)	3/8" – 24 Thread
14-376	2" (51mm)	1/2" (13mm)	230 (36 Grit)	3/8" – 24 Thread
14-376A	2" (51mm)	1/2" (13mm)	390 (16 Grit)	3/8" – 24 Thread
14-377	2" (51mm)	3/4" (19mm)	230 (36 Grit)	3/8" – 24 Thread
14-377A	2" (51mm)	3/4" (19mm)	390 (16 Grit)	3/8" – 24 Thread





RASPS & CUPS

 $Maximum\ recommended\ operating\ speed = 5,000\ rpm$ Regritting available for rasps and cups – ask for details

PIRANHA RASPS				
Less expensive than standard round faced rasps				
Part Number	Diameter	Width	SSG (Grit)	Arbor Hole
14-382	2" (51mm)	1/2" (13mm)	16 Grit	3/8"





Double stack for 3/4" buffing width

FLAT FACED RASPS				
Part Number	Diameter	Width	SSG (Grit)	Arbor Hole
14-383	2" (51mm)	3/16" (5mm)	16 Grit	3/8" – 24 Thread
14-383A	2" (51mm)	3/16" (5mm)	36 Grit	3/8" – 24 Thread
14-384	2" (51mm)	1/4" (6mm)	16 Grit	3/8" – 24 Thread
14-384A	2" (51mm)	1/4" (6mm)	36 Grit	3/8" – 24 Thread



14-382



ROUND FACED RASPS				
Part Number	Diameter	Width	SSG (Grit)	Arbor Hole
14-385	2" (51mm)	1/2" (13mm)	16 Grit	3/8" – 24 Thread
14-385A	2" (51mm)	1/2" (13mm)	36 Grit	3/8" – 24 Thread
14-386	2" (51mm)	3/4" (19mm)	16 Grit	3/8" – 24 Thread
14-386A	2" (51mm)	3/4" (19mm)	36 Grit	3/8" – 24 Thread

Contract of the Contract of th	14-385A		14-386A
14-385		14-386	

PENCIL & TAPERED CONE RASPS				
Part Number	Diameter	Width	SSG (Grit)	Arbor Hole
14-390	2 1/2" (64mm)	1/4" (6mm)	16 Grit	1/4" Shank
14-390A	2 1/2" (64mm)	1/4" (6mm)	36 Grit	1/4" Shank
14-393	2" (51mm)	3/4" (19mm)	16 Grit	3/8" – 24 Thread
14-393A	2" (51mm)	3/4" (19mm)	36 Grit	3/8" – 24 Thread
14-394	4" (102mm)	3/4" (19mm)	16 Grit	3/8" – 24 Thread
14-394A	4" (102mm)	3/4" (19mm)	36 Grit	3/8" – 24 Thread



CONTOUR CUPS				
Part Number	Diameter	Width	SSG (Grit)	Arbor Hole
14-396	3" (76mm)	1" (25mm)	16 Grit	3/8"
14-396A	3" (76mm)	1" (25mm)	36 Grit	3/8"
14-397	3" (76mm)	1 1/2" (38mm)	36 Grit	3/8"
14-397A	3" (76mm)	1 1/2" (38mm)	60 Grit	3/8"
14-398	4" (102mm)	1 1/2" (38mm)	36 Grit	1/2"
14-398A	4" (102mm)	1 1/2" (38mm)	60 Grit	1/2"



14-397



14-397A



14-398

14-398A

	ROTARY GOUGES					
Part Number	Description	Arbor Hole	Box Qty			
14-401	3/4" Micro	3/8"-24 Thread	4			
14-402	1 1/4" Mini	3/8"	3			
14-404	2" Thin Walled	3/8"	2			
14-405	2" Thin Walled, Notched	3/8"	2			
14-408	2" Thin Walled	1/2"	2			
14-411	2" Heavy Walled, Notched	1/2"	1			
14-412	1/2" to 3/8" Reducer Washer	•				



14-402

14-404 and 14-408



14-405 and 14-411

WHEEL SERVICE TOOLS

We make available a large selection of specialty tire & wheel service tools. The most popular tools available in one place.

M7 Air Impact Wrenches

- Compact Size (4 3/8" length) and Lightweight (under 3.5 lb.) for All Day Use
- Deliver 500 ft-lb Max Torque
- Quiet 85 db Operation
- 4.0 CFM Air Consumption
- 3/8" Air Hose Fittings, 1/2" Drive
- 14-252 Features a 2" Anvil for Using Flip Sockets

WHEEL SERVICE KITS

9-P	9-PIECETORQUE MASTER KIT			
Part Number	Des	scription		
14-810	9-Piece Torque Master Kit (14-811 – 14-819)			
14-811	13/16" 100 ft-lbs.	Brown		
14-812	21mm 80 ft-lbs.	Orange		
14-813	19mm 100 ft-lbs.	Gray		
14-814	21mm 60 ft-lbs.	Black		
14-815	19mm 80 ft-lbs.	Blue		
14-816	19mm 65 ft-lbs.	Yellow		
14-817	17mm 80 ft-lbs.	Red		
14-818	17mm 55 ft-lbs.	Green		
14-819	7/8" 120 ft-lbs.	White		
14-8190	7/8" 140 ft-lbs.	Aqua		
		The state of the s		

5-PIECETORQUE EXTENSION KIT

Part Number	Description		
14-820	5-Piece Torque Extension Kit (14-821 – 14-825)		
14-821	100 ft-lbs.	Gray	
14-822	80 ft-lbs.	Blue	
14-823	65 ft-lbs.	Yellow	
14-824	120 ft-lbs.	White	
14-825	140 ft-lbs.	Aqua	

FLIP SOCKET				
Part Number	Size	Description		
14-845	17mm – 19mm	Thin Walled		
14-845A	17mm – 19mm	Extra Thin Walled		
14-846	3/4" — 13/16"	Thin Walled		
14-846A	3/4" — 13/16"	Extra Thin Walled		
14-847	19mm – 21mm	Thin Walled		
14-847A	19mm – 21mm	Extra Thin Walled		
14-848	7/8" — 15/16"	Thin Walled		



1/2" **Drive Mini Impact Wrench**

10,000 rpm

14-810 9-Piece Torque Master Kit

The 9-piece torque master kit will tighten wheel nuts to the correct torque, the first time, every time on most makes and models of foreign and domestic cars and light trucks. These tools are designed for use with a 1/2" drive impact wrench and comes in a wall mountable carrying case with wall chart.



14-820 5-Piece Torque Extension Kit

The 1/2" Drive Wheel Torque Extension Kit will torque wheel nuts on most foreign and domestic cars and light trucks to the correct torque, the first time, every time, with your thin wall or regular lug nut sockets. Since more vehicles every year have tight

tolerances around the wheel nuts, this kit will help eliminate damage to wheels when torquing the wheel nuts. This 5-piece kit includes a wall chart and a custom case.





14-820







14-848

SOCKETS & WHEEL SERVICE KITS

Specialty Alloy Wheel Impact Socket Set



- 17 EXTRA-THIN WALL DEEP-IMPACT SOCKETS with Poly Rim Protectors
- 1/2" DRIVE with 6-Point Hex Opening SAE & Metic Sizes
- RAD-VTX™ High Strength, High Torque, Less Wear
- HD CRMO Color-Coded with Dual-HD Sizing Laser & Stamp
- BMC Poly Storage Case







Don't November	IIV	PACT SOCKET	Size
Part Number	X-TR	Description IT SAE & METRIC A THIN WALL DEEP	
18-666		66 to 18-621) GREEN	13/16"
18-667	SAE	DARK GREEN	7/8"
18-669	SAE	NICKEL	1"
18-670	SAE	BLACK	1-1/16"
18-617	MM	BLUE	17mm
18-619	MM	GOLD	19mm
18-621	MM	RED	21mm
18-038		IT METRIC A THIN WALL DEEP	-IMPACT





7 Unit SAE & METRIC X-tra Thin Wall Deep-Impact Sockets



1/2" DRIVE • STANDARD-LENGTH SAE **IMPACT SOCKETS**

Part Number	Description	Size
18-031	13 UNIT SAE Standard-Length Sock	et Set
18-360	Standard Length – SAE	7/16"
18-361	Standard Length – SAE	1/2"
18-362	Standard Length – SAE	9/16"
18-363	Standard Length – SAE	5/8"
18-364	Standard Length – SAE	11/16"
18-365	Standard Length – SAE	3/4"
18-366	Standard Length – SAE	13/16"
18-367	Standard Length – SAE	7/8"
18-368	Standard Length – SAE	15/16"
18-369	Standard Length – SAE	1"
18-370	Standard Length – SAE	1-1/16"
18-371	Standard Length – SAE	1-1/8"
18-373	Standard Length – SAE	1-1/4"

13 Unit SAE Standard-Length **Impact Socket Set - BMC**





Standard-Length SAE Socket Set

1/2" DRIVE • STANDARD-LENGTH Part Number Description **14 UNIT METRIC** 18-032 STANDARD-LENGTH SOCKETS 18-310 Standard Length - MM 10mm 18-311 Standard Length - MM 11mm 18-312 Standard Length - MM 12mm 18-313 Standard Length – MM 13mm 18-314 Standard Length - MM 14mm 18-315 Standard Length – MM 15mm 18-316 Standard Length – MM 16mm 18-317 $Standard\ Length-MM$ 17mm 18-318 Standard Length - MM 18mm 18-319 Standard Length - MM 19mm 18-321 Standard Length – MM 21mm 18-322 Standard Length - MM 22mm 18-326 Standard Length - MM 26mm 18-327 Standard Length – MM 27mm

1/2" DRIVE • DEEP-LENGTH			
18-033	11 UNIT SAE & METRIC DEEP-LENGTH Socket Set		
18-465	Deep Length – SAE	3/4"	
18-466	Deep Length – SAE	13/16"	
18-467	Deep Length – SAE	7/8"	
18-469	Deep Length – SAE	1"	
18-470	Deep Length – SAE	1-1/16"	
18-417	Deep Length – MM	17mm	
18-419	Deep Length – MM	19mm	
18-421	Deep Length – MM	21mm	
18-422	Deep Length – MM	22mm	
18-423	Deep Length – MM	23mm	
18-101	3" Drive Extension – ≥ Friction Ball	3"	

1	/2" DRIVE • DEEP-LEN	NGTH
18-034	13 UNIT SAE DEEP-LENGTH Socket Se	t
18-460	Deep Length – SAE	7/16"
18-461	Deep Length – SAE	1/2"
18-462	Deep Length – SAE	9/16"
18-463	Deep Length – SAE	5/8"
18-464	Deep Length – SAE	11/16"
18-465	Deep Length – SAE	3/4"
18-466	Deep Length – SAE	13/16"
18-467	Deep Length – SAE	7/8"
18-468	Deep Length – SAE	15/16"
18-469	Deep Length – SAE	1"
18-470	Deep Length – SAE	1-1/16"
18-471	Deep Length – SAE	1-1/8"
18-473	Deep Length – SAE	1-1/4"

METRIC Standard-Length Impact Socket Set - BMC







SAE & METRIC Deep-Length Impact Socket Set - BMC



SAE Deep-Length Impact Socket Set - BMC







1/2" DRIVE • DEEP-LENGTH Part Number Description Size **14 UNIT METRIC** 18-035 **DEEP-LENGTH SOCKETS** 18-410 10mm Deep Length - MM 18-411 Deep Length - MM 11mm 18-412 Deep Length - MM 12mm 13mm 18-413 Deep Length - MM 18-414 Deep Length - MM 14mm 18-415 Deep Length - MM 15mm 18-416 Deep Length - MM 16mm 18-417 Deep Length - MM 17mm 18-418 Deep Length - MM 18mm 18-419 Deep Length - MM 19mm 18-421 Deep Length - MM 21mm 18-422 Deep Length - MM 22mm 18-426 Deep Length - MM 26mm 18-427 Deep Length - MM 27mm

METRIC Deep-Length Impact Socket Set - BMC



Deep-Length METRIC Socket Set

1/2" DRIVE • EXTRA-THIN-WALL DEEP-LENGTH

Part Number	Description	Size
18-036	11 UNIT SAE & METRIC XTRA-THIN-WALL DEEP-LENGTH Socket Set	
18-565	Xtra Thin Wall Deep Length – SAE	3/4"
18-566	Xtra Thin Wall Deep Length – SAE	13/16"
18-567	Xtra Thin Wall Deep Length – SAE	7/8"
18-569	Xtra Thin Wall Deep Length – SAE	1"
18-570	Xtra Thin Wall Deep Length – SAE	1-1/16"
18-517	Xtra Thin Wall Deep Length – MM	17mm
18-519	Xtra Thin Wall Deep Length – MM	19mm
18-521	Xtra Thin Wall Deep Length – MM	21mm
18-522	Xtra Thin Wall Deep Length – MM	22mm
18-523	Xtra Thin Wall Deep Length – MM	23mm
18-101	3" Drive Extension – Friction Ball	3"

SAE & METRIC Extra-Thin-Wall Deep-Length Impact Socket Set - BMC



Extra-Thin Wall Deep-Length SAE & Metric Socket Set

SAE & METRIC Wheel Service Set - BMC

3/4" DRIVE • WHEEL SERVICE SET			
Part Number	Description	Size	
18-061	5 UNIT SAE & METRIC Wheel Service Set		
18-766SQ	Standard Length Square – SAE	13/16"	
18-733	Deep Length – MM	33mm	
18-771	Deep Length – SAE	1-1/16"	
18-773	Deep Length – SAE	1-1/4"	
18-777	Deep Length – SAE	1-1/2"	



18-061 SAE & METRIC Wheel Service Set

	1" DRIVE • WHEEL SERVICE	SET
Part Number	Description	Size
18-081	10 UNIT SAE & METRIC Wheel Service Set	
18-866SQ	Standard Length Square – SAE	13/16" SQ
18-868SQ	Standard Length Square – SAE	15/16" SQ
18-833	Deep Length – MM	33mm
18-869	Deep Length – SAE	1"
18-872	Deep Length – SAE	1-3/16"
18-881	Deep Length – SAE	1-3/4"
18-803	Xtra Thin Wall Deep Length – SAE	1-1/16"
18-804	Xtra Thin Wall Deep Length – SAE	1-1/8"
18-805	Xtra Thin Wall Deep Length – SAE	1-1/4"
18-141	Deep Length Combination Budd Socket – SAE	1 1/2" x 13/16" SQ

DRIVE EXTENSIONS			
Part Number	Description	Drive	
18-101	3" Drive Extension – Friction Ball	1/2"	
18-102	5" Drive Extension – Friction Ball	1/2"	
18-120	6" Drive Extension – Friction Ball	1"	
18-130	Universal Joint 1/2" x 1/2" – Friction Ball	1/2"	
18-131	Universal Joint 3/4" x 3/4" – Friction Ball	3/4"	
18-132	Universal Joint 1" x 1" – Friction Ball	1"	
18-140	41mm x 21mm Deep Combination Budd Socket	1"	
18-141	1 1/2" x 12/16" Deep Combination Budd Socket	1"	

Deluxe Hubcap & Wheel Lock Removal Kit

The Deluxe Hubcap and Wheel Lock Removal Kit safely removes and replaces GM, Ford, and Chrysler wire wheel hubcap locks on 1978 or newer vehicles. Also removes factory and most aftermarket locking lug nuts. Includes instructions and is packaged in a custom carrying case.

HUBCAP AND WEEL REMOVAL KIT			
Part Number	Description		
14-830	Deluxe Hubcap and Wheel Lock Removal Kit		

SAE & METRIC Wheel Service Set - BMC









14-830

Sockets for Lug Nut Removal

For the removal of lug nuts that are damaged/rounded because of unsuccessful removal, rust or other damage. The twist socket has a fluted design which gives the socket a tight grip to remove the most difficult lug nuts with easy removal of the lug nut from the socket. Works with a 1/2" impact wrench or breaker bar for service calls.

SOCKETS FOR LUG NUT REMOVAL		
Part Number	Description	
14-835	Twist Socket Lug Nut Removal System Two dual-sided sockets and extractor punch Use for 3/4", 19mm, 13/16", 21mm lugnuts	
14-840	Dual-Sided Twist Socket Lug Nut Remover Use for 3/4", 19mm, 13/16", 21mm lugnuts	
14-840A	400-12 Replacement Socket for 14-830	



18-101 18-102

18-120



- NOTE: Socket with 6 flute design is for removing regular lugnuts
 - · Socket with 12 flute design is for removing locking lugnuts

TOOL & SUPPLY ORGANIZERS



- Designed for a tire repair supply product assortment
- 9" deep x 20" wide x 23" tall, 35 lbs., metal build suitable for wall mount
- Multiple shelves, 1 pull-out drawer, and 1 oversized bin-space drawer



- Designed for a TPMS product assortment
- 11.5" deep x 22" wide x 28.5" tall, metal build suitable for wall mount
- Locking door, multiple shelves, 1 small pull-out drawer, 3 pull out bin-space drawers offering 36 spaces for service kit organization



14-652BOX **Tool Box**

14-614 **Rolling Cabinet**

- 500 lb. Load Capacity
- Extending lid with automatic gas shocks
- 5" Industrial casters
- Ball bearing cabinet glides
- Lid and drawer locking system with keys
- 2-3" drawers, 1-4" drawer, 1-5" drawer
- 40" tall





TIRE MOUNT/DEMOUNT TOOLS

Ken-Tool™ offers a complete line of tire changing tools, bead breaking tools, lug wrenches, rim service tools, and specialty tools. For your convenience we offer the most popular tools used in the industry today.

Any Ken-Tool™ item not listed is available by special order. Ask for details.

14-T57

Any Ken-Tool™ item not listed is available by special order. Ask for details.

Wrenches

	WRENCHES						
Part Number	EDP No.	Description	Socket Sizes	Length	Stock	Weight	
14-T57	35657	Professional Gold 4-Way	3/4", 13/16", 7/8", 15/16"	23" (58.4cm)	5/8" (16mm)	4 3/4 lbs. (2.0kg)	
14-T95	35695	Heavy Duty Truck 4-Way	1 1/16", 1 1/4", 1 1/2", 13/16" sq	27 1/2" (69.9cm)	1" (25mm)	13 3/4 lbs. (6.2kg)	
14-TX9	30609	SAE and Metric Cap Nut	1 1/2" (38mm)			.4 lbs. (.1kg)	



Bead Breaking Tools & Hammers

BEAD BREAKING TOOLS				
Part Number	EDP No.	Description	Length	Weight
14-T11E	35329	Wood Handled Wedge	30" (76.2cm)	8 1/2 lbs.
14-TG11D	35427	Fiberglass Handled Wedge	18" (45.7cm)	4 3/4 lbs.
14-TG11E	35429	Fiberglass Handled Wedge	32" (81.3cm)	8 1/2 lbs.
14-T24B	35924	Economy Impact Bead Breaker	46" - 72" (117.0cm - 183.0cm)	13.5 lbs. (6.1kg)
14-T26B	35926	Heavy Duty Impact Bead Breaker	50" - 80" (127.0cm - 203.2cm)	23 lbs. (10.4kg)





HAMMER HANDLES				
Part Number	EDP No.	Description	Length	Weight
14-T11EH	35129	Hickory Handle	30" (76.2cm)	1 1/4 lbs.
14-TG11EH	35229	Fiberglass Handle	32" (81cm)	2 1/4 lbs.

TIRE HAMMERS WITH FIBERGLASS HANDLE					
Part Number	EDP No.	Description	Length	Weight	
14-TG35	35423	Head Wt. 4 3/4 lbs. (2.2kg)	18" (45.7cm)	7 lbs. (3.2kg)	
14-T34RH	35105	Rubber Head for TG35		1 lb.	



Lock Ring Tools

These tools are designed to remove lock rings on most trucks on the road today. A must-have for anyone mounting or demounting multi-piece rims.



Any Ken-Tool™ item not listed is available by special order. Ask for details.

TRUCK LOCK RING TOOLS					
Part Number	EDP No.	Length	Stock	Weight	
14-T48A	34648	HEAVY DUTY LOCK RING TOOL Use for multi-piece wheels, especially hub type.			
		37" (94cm)	3/4" (19mm)	4.6 lbs. (2.1kg)	



Wheel Cover Puller

Removes wheel covers quickly and easily without gouging or scratching them. Rubber head T11RH prevents damage to hub cap and is replaceable.

WHEEL COVER PULLER				
Part Number	EDP No.	Length	Stock	Weight
14-T68	31568	14" (36cm)	7/16" (11.1mm)	1 1/4 lbs. (.6kg)

Tubeless Tire Irons

Use on standard and large truck tires, including industrial, farm, buses, and tractors. Use in pairs.

TUBELESS TIRE IRONS					
Part Number	EDP No.	Length	Stock	Weight	
14-T45A	34645	37" (94.0cm)	3/4" (19mm)	4 1/2 lbs. (2.0kg)	
14-T45A-2000K	34644	37" (94.0cm)	3/4" (19mm)	5 lbs. (2.2kg)	
14-T45HD	34647	41" (104.1cm)	7/8" (22mm)	7 lbs. (3.2kg)	
14-T46A	34747	36" (91.4cm)	3/4" (19mm)	4 1/2 lbs. (2.0kg)	



Tire Mount/Demount Tools

These irons are designed for fast and efficient tire changing. Use the 18" and 24" spoons to mount or demount passenger car, motorcycle, ATV, and light truck tires. The 30" spoons provide enough strength and leverage to work on large truck, bus, off road vehicle, tractor and aircraft tires. Use in pairs.

STRAIGHT TIRE SPOONS				
Part Number	EDP No.	Length	Stock	Weight
14-T19	32119	24" (61.0cm)	11/16" (17.5mm)	2 1/2 lbs. (1. kg)
14-T19A	33219	30" (76.2cm)	11/16" (17.5mm)	3 lbs. (1.4kg)

CURVED TIRE SPOONS				
14-T2X	32102	18" (45.7cm)	11/16" (17.5mm)	1 3/4 lbs. (.3kg)
14-T20	32120	24" (61.0cm)	11/16" (17.5mm)	2 1/4 lbs. (1.0kg)
14-T20A	33220	30" (76.2cm)	11/16" (17.5mm)	3 lbs. (1.4kg)

DROP-CENTER TIRE SPOONS				
14-T21F	34121	24" (61.0cm)	11/16" (17.5mm)	2 1/2 lbs. (1.1kg)
14-T21R	32121	18" (45.7cm)	11/16" (17.5mm)	1 3/4 lbs. (.3kg)

SMALLTIRETOOLS				
14-T6A	32106	16 1/2" (42cm)	5/8" (16mm)	1 1/2 lbs. (.7kg)
14-T9A	32109	9" (23cm)	7/16" (11mm)	.4 lbs. (.16kg)



14-35440

BLUE COBRA® Truck Tire Demount Tool

Quickly demount nearly any 22.5" and 24.5" tubeless truck tire up to a 13" wide wheel. Ergonomic shaped steel handle with no-slip grip for optimum leverage while reducing back injuries. Solid steel Cobra head is pressfit into the steel handle — no fasteners to loosen or fall out. Allows demounting of the tire without lifting the entire wheel and tire off the ground — reduces back injuries. Aluminum bead support to grab the top bead of Super Single and Super Wide tires. 2 heavy-duty nylon rollers are easily replaced when worn, kit No. 35441 includes two rollers and two roll pins.

14-35440 16 lbs. (7.3 kg)

14-34549

4 Piece Dual Wheel Separator Kit

Makes removing stuck or frozen dual steel wheels guick and easy. Ideal for use on nearly any truck, bus, van or trailer that has dual steel wheels. Component parts available.

- Innovative "One-piece" pusher won't fall apart during use
- Pusher is ball bearing-driven for near-zero turning resistance
- Pusher is heat treated for long-lasting strength and durability
- Forcing screw and pullers have powerful 1-1/8" diameter x 11 threads for years of reliable service
- Includes two pullers to cover large truck, trailer and smaller light truck dual wheel applications
- Components have black oxide or bright nickel plating finish for rust and corrosion resistance
- Use with air or electric impact wrench
- Components are laser-etched for easy identification
- Comes in a sturdy, compact, easy to store case; 6.5" x 9.5" x 2.5", 5.3 lbs.
- Proudly made in USA
- Limited lifetime warranty



Loosens tire bead from rim with leverage. Excellent for working on tire without removing the whole wheel from tractor. Will handle 38" and 42"14-ply farm tractor and backhoe tires with drop center rims to small ATV and lawn mower tires. Operates with air ratchet.





14-34549

5.3 lbs. (2.4 kg)



WARNING

HAMMERS

Always wear safety goggles when using striking or struck tools. Never use one hammer to strike another hammer. Never use a striking tool with loose or damaged handle. Discard any striking or struck tool if tool shows dents, cracks, chips or mushrooming.

WARNING

STRUCK TOOLS, BEAD BREAKERS **AND WEDGES**

Striking and struck tools can break or chip. Chipped or mushroomed ends can fragment. Wear safety goggles. Replace damaged tools.

MOUNTING RINGS & ACCESSORIES

Many earthmover, grader, agricultural, and industrial tires require the use of O-rings or L-rings to achieve an air-tight seal. We offer only the highest quality products to meet this need.

O-Rings for Earthmovers

- High quality polysoprene rubber
- Manufactured to OEM specifications

L-Rings for Earthmovers

- Creates an air seal where the bead and rim seat are not completely compatible
- Not a cure for damaged beads or damaged wheels and rims. Caution should be used during fitments. Do not install where a broken bead is suspected.

O-RINGS					
Part Number	Tire Type	Rod Diameter	Rim Size	Bag Qty	
16-120JM	Highway (JM)	0.250"	20"	2	
16-122JM	Highway (JM)	0.250"	22"	2	
16-124JM	Highway (JM)	0.250"	24"	2	
16-1220TG	Grader	0.250"	20"	2	
16-1224TG	Grader	0.250"	24"	2	
16-125T	Earthmover	0.250"	25"	2	
16-1325T	Earthmover	0.375"	25"	2	
16-1329T	Earthmover	0.375"	29"	2	
16-1332T	Earthmover	0.375"	32"	2	
16-1333T	Earthmover	0.375"	33"	2	
16-1335T	Earthmover	0.375"	35"	2	
16-1345T	Earthmover	0.375"	45"	2	
16-1349T	Earthmover	0.375"	49"	2	
16-1451T	Earthmover	0.500"	51"	2	
16-1457T	Earthmover	0.500"	57"	2	

L	RINGS	
Part Number	Rim Size	Bag Qty
16-225	25"	2
16-229	29"	2
16-233	33"	2
16-235	35"	2
16-239	39"	2
16-245	45"	2
16-249	49"	2
16-251	51"	2
16-257	57"	2
16-263	63"	2

"Donut-Style" Mounting Rings

Donut-style mounting rings are a simple, yet effective mounting device that fits over the rim between the bead and rim flange creating a seal. As the tire expands, the mounting ring slides out over the rim allowing the beads to fully seat.

"DONU	T STYLE" MOUNTIN	G RINGS
Part Number	Description	Diameter
14-990	For 13" Rims	1 3/4"
14-991	For 14" Rims	1 3/4"
14-992	For 16" - 17" Rims	1 1/8"
14-993	For 19.5" Rims	1 1/8"
14-994	For 22.5" - 24.5" Rims	1 1/8"
14-995	For 15" Rims	1 3/4"
14-996	For 16" Rims	1 3/4"
14-997	For 17" Rims	1 3/4"
14-998	For 18" Rims	1 3/4"
14-999	For 20" Rims	1 3/4"



NOTE: O.S.H.A. regulations require that service personnel use a clip-on air chuck with an inline inflater at a recommended distance that keeps the employee out of the trajectory of the tire and rim. After beads are seated, put tire and rim into approved inflation cage and continue to inflate to prescribed air pressure.

14-CH5

Cheetah Bead Seater

The 5-gallon Cheetah Bead Seater makes seating the most difficult bead not only safe but simple, fast and economical. As the most popular bead seater model, the CH-5 has an ASME certified tank designed for commercial use on all tires, ATV to 24.5" truck tires, and is now available in lighter weight aluminum. The optional Magnum Barrel I is helpful in seating the beads on larger diameter wheels due to a wider distribution of the air blast.

14-980

Protectors for Aluminum Wheels

Wheel protectors prevent wheel surfaces from being scarred and damaged by tools and other objects. These protectors are made from almost unbreakable polymer compound and are imprinted with torque sequences.



14-986 Zafety Lug Lock™

This new and innovative product is setting a new standard for road safety in North America! Other products let you know when a lug nut has loosened but do nothing to ensure that the lug nuts remain torqued properly.

Zafety Lug Lock™ is a revolutionary design that incorporates the resistance between two nuts to minimize their ability to rotate, essentially locking them in place!

- Significantly reduces possibility of wheel separation resulting in personal injury, loss of life, property damage, and hefty fines
- Reduces inspection time, resulting in less downtime for vehicles and drivers
- Provides a clear, visual check
- Flexible, easy to install and remove, and re-usable
- Laboratory tested in severe vibration conditions from -40°F to +122°F (-40°C to +50°C)
- Fits 33mm lug nuts on 10-stud piloted wheels with 3.5" stud spacing



HEETAHBEAD SEATER

19-231 **New/Used Tire Labels**

Roll of 250 labels

• 2.5" x 6" labels





WHEEL SERVICE

	WHEEL WEIGHT TOOLS
Part Number	Description
14-900	Premium Universal Wheel Weight Tool
14-900-1	Replacement Cap for 14-900
14-901	Premium Wheel Weight Hammer
14-901-1	Replacement Cap for 14-901
14-901-2	Replacement Hook for 14-901
14-902	Wheel Weight Remover
14-902-1	Replacement Cap for 14-902
14-902-2	Replacement Hook for 14-902
14-904	Wheel Weight Pliers
14-905	Wheel Weight Pliers
14-906	Heavy-Duty Wheel Weight Pliers
14-907	No-Mar Wheel Weight Pliers for Aluminum Rims
14-907R	Replacement Cap for 14-907
14-909	Stick on Wheel Weight Remover

14-900 **Premium Universal Wheel Weight Tool**

• The only tool that can remove ALL wheel weights, including stubborn "clip only" style weights, fast and easy without pinching fingers.

• Replacement parts available so you never have to buy another wheel weight tool again.

• Made in USA





WHEEL BALANCER, CONES & SPACERS

Part Number	Description
14-94725-40	40mm Cone; 3.375" - 5.25" Range
14-94730-40	40mm Cone; 3.375" - 5.88" Range
14-94735-40	40mm Cone; 5.03" - 6.88" Range
14-94750-40	40mm Wheel Balancer Spacer/ Backing Plate

WHI	EEL BALANCER ACCESSORIES
/ 02C	Manual III Nut for Coats Wheel

14-936	Manual Hub Nut for Coats Wheel Balancers for Coarse Thread Shaft 28.5mm
14-939	Rim Width Caliper

5100 & 5600 (Serial 51-0623 to 51-1457) 80-100, 80-303 Bear 14-94750-40 Beissbarth All Models CEMB Truck Balancers Since June 2000 Coats With Optional 40mm Shaft ALL Models On FMC, Hofmann, Hunter, John Bean, Kwik-Way, Performance, Phoenix CB-113 14-939

Accuturn

14-936

m Cones and spacers fit

1200, 1250, 1400, 1500, 1550,1650, 1850,

CheckMate[™] **Glass Blasting Beads**

CheckMate Glass blasting beads uniform smooth finish remove paint, rust and corrosion – creating a clean, uniform mating surface.

- They produce a smoother, brighter finish than angular abrasives
- Leaves no embedded contaminates or residue
- Reusable and environmentally friendly

CHECKMATE BEADS & BLASTING GUN

Part Number	Description
16-295	CheckMate Blasting Beads, 400 oz. Bucket
16-299	Blasting Gun





Counteract balances for the complete life of the tire by readjusting the balanced position as required. Benefits of keeping the entire wheel assembly in balance include increase tread life, increased fuel economy and eliminates wheel vibration.



Counteract Balancing Beads

- Easy to use, bag-in-bag packaging
- Will not clump due to moisture
- Will not interfere with tire repair (remove before beginning repair)
- Use with tubeless or tube-type tires

COUNTE	RACT BALANCING	BEADS
Part Number	Size	Case Qty
16-301	1 oz. Counteract	40
16-302	2 oz. Counteract	32
16-303	3 oz. Counteract	24
16-304	4 oz. Counteract	92
16-305	5 oz. Counteract	76
16-306	6 oz. Counteract	64
16-308	8 oz. Counteract	52
16-310	10 oz. Counteract	40
16-312	12 oz. Counteract	36
16-314	14 oz. Counteract	32
16-316	16 oz. Counteract	28



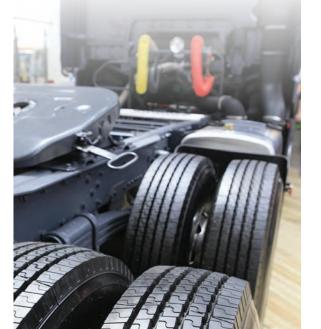
EASY TO USE, BAG-IN-BAG PACKAGING

Simply open the outer bag, remove the inner bag and throw the inner bag inside the tire before inflating. This method allows the use of an air blaster and will not contaminate the bead seating area.

Scan QR For Tire **Size Application**



www.31inc.com/ counteract.pdf



PolyPadz

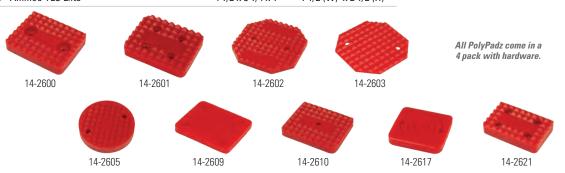
- The most popular lift pads manufactured with polyurethane
- Outlasts standard rubber pads many times
- You may never need to buy a lift pad again

POLYPADZ				
Part Number	Lift Manufacturer	L x W x H (Inches)	Bolt Hole Pattern (Center to Center)	
14-2600	Ammco/Ben Pearson/Challenger/Weaver	4 3/4 x 4 x 1	31/4	
14-2601	Benwill/Bishamon/Coats	4 1/2 x 3 5/8 x 3/4	1 5/8 (W) x 1 5/8 (H)	
14-2602	Challenger VBM Round/Rotary RTP 10	5 3/4 x 5 3/4 x 1/4	3	
14-2603	American/Eagle/Forward/Gemini/Worth	5 x 5 x 1/4	3-3/4	
14-2605	Force (old)/Nussbaum/Phoenix	5 x 5 x 1	3-1/2	
14-2609	Rotary SPO 12	4 1/2 x 3 1/2 x 1/2	2 1/4 (W) x 3	
14-2610	Ammco Square/Snap-On/Wheeltronics	5 x 4 1/4 x 3/4	n/a	
14-2617	Challenger CL9 and CL10	4 x 4 x 1/2	3	
14-2621	Ammco TLS Lifts	4 1/2 x 3 1/4 x 1	1 1/2 (W) x 2 1/2 (H)	





You may never need to buy a lift pad again!



Rubber Lift Pads

RUBBER LIFT PADS				
Part Number	Lift Manufacturer	L x W x H (Inches)	Bolt Hole Pattern (Center to Center in Inches)	
14-2650	Ammco/Ben Pearson/Challenger/Weaver	3 3/4 x 5 3/4 x 7/8	31⁄4	
14-2651	Benwill/Bishamon	4 1/2 x 3 5/8 x 3/4	1 7/8 (W) x 1 5/8 (H)	
14-2652	Challenger VBM Round	5 7/8 x 5 7/8 x 1/4	3	
14-2653	American/Eagle/Forward/Gemini/Worth	5 x 5 x 1/4	3 3/4	
14-2655	Force (old)/Nussbaum/Phoenix	5 x 5 x 1	3 1/2	
14-2659	Rotary SPO 12	4 x 3 1/4 x 1/4	3 (W) x 2 3/8 (L)	
14-2660	Ammco Square/Snap-On/Wheeltronics	5 1/4 x 4 1/2 x 1	_	
14-2667	Challenger CL9 and CL10	4 x 4 x 7/16	_	
14-2671	TLS Globe	3 x 4 1/2 x 1	2 3/8 (W) x 1 5/8 (H)	



TIRE CHANGING ACCESSORIES

		MOUNT /	DEMOUNT HEADS	A. Comment
nc. Imber	0EM	OEM Part Number	Tire Changer Model	14-96
1-9682	Stainless St	teel Head with Ro	ound Hole	
	Coats Corghi	8183429 258458	RC 1, 5, 10, 15, 20, Early 5060 All Models	
14-969	Nylon Head			
	Accuturn Hofmann	20024335 ST0024335	3602, 3602HP, 4260, 4560MR, 4602, 5602, 5602 HP 1000, 1520, 1565, 1575, 1620, 1625, 1625EM, 3300, 3300EM, 3550	14-969
	John Bean Snap-On	24335 20024335	EHP Series Tire Changers All Models	
14-9691	Nylon Head	l Kit		
	Accuturn Hofmann	14024784 4024784	3602, 3602HP, 4260, 4560MR, 4602, 5602, 5602 HP 1000, 1520, 1565, 1575, 1620, 1625, 1625EM, 3300, 3300EM, 3550	
	John Bean Snap-On	EAA 0247G20A EAA 0247G20A	- · · · · · · · · · · · · · · · · · · ·	
14-969Y	Yellow Nylo	n Mount/Demour	nt Head for Snap-On	
	Snap-On	EAC0060G68A	All Models	12-
14-970	Nylon Head	I Kit with Tapered	l Hole	
	Coats	8183061 8182960 (head only) 8184410 (25 Pk)	RC100, RC150, RC200, 5030, 5035, 5045, 5040, 5050 Series, 5060 Series, 5065 Series, 6050, 6060, 6065, 7050, 7055, 7060, 7065, 7655, 7660, 7665, Baseline BL200, BL300, BL400, BL500	14-969Y
14-970G	Low Profile Low Profile		nt/Demount Head Kit for Use with	
	Coats	8184432 8184426 85000372 (25 Pk)	RC100, RC150, RC200, 5030, 5035, 5045, 5040, 5050 Series, 5060 Series, 5065 Series, 6050, 6060, 6065, 7050, 7055, 7060, 7065, 7655, 7660, 7665, Baseline BL200, BL300, BL400, BL500	9
14-9702	Stainless St	teel Head with Ta	pered Hole for Coats	14-970G
	Coats	8182788	RC100, RC150, RC200, 5030, 5035 5045, 5040, 5050 Series, 5060 Series, 5065 Series, 6050, 6060 6065, 7050, 7055, 7060, 7065, 7655, 7660, 7665, Baseline BL200, BL300, BL400, BL500, APX 80 and APX90 Requires Shaft Reversal to Use Metal Head	
14-971	Nylon Head	l with Round Hole	Head Only	
	Corghi All Tool Hoffman	450310 2008401 8314813	All Rim Clamp All Models 1550, 1510, 1610, 3200, 3500, 5410, S408MAXI Not for Use On Hofmann 1620 and 1625	
	Cemb Sice	3008403 8314813	All Models M39, S40, S41, S42, S43, S45, S408MAXI, S435, S436, S436TOP	14.074
	Conto	02000402	PC 1 5 10 15 20 Early 5060 0010 0024	14-971

RC 1, 5, 10, 15, 20, Early 5060, 9010, 9024,

Fits All TCX Series – Requires Adapter

Shaft/Adapter Kit RP11-8-11400091)

RP11-5-400100 (Earlier TCX500 Requires Upgrade

APX 80, APX90

All Models



Coats

Giuliano

Hunter

83008403

G3008403

RP11-8314813

14-9711	Nylon Head K	it with Round H	lole	
	Corghi	250309	All Rim Clamp	
	All Tool	2008402	All Models	
	Cemb	2008402	All Models	
	Hoffman	2200981	1550, 1510, 1610, 3200, 3500, 5410, S408Maxi, Not For Use On Hofmann 1620 and 1625	
	Coats	82008402	RC 1, 5, 10, 15, 20, Early 5060, 9010, 9024, APX 80, APX 90	
	Giuliano	G2008402	All Models	
14-972				
14-972R	Ranger	5150523	2R-980XR, R-980NXT, R-30XLT Requires Mounting Flange 5150524	
	Hunter	RP6 0343B 221-675-2	TC250, TC300, TC325, TC350, TC2000, TC3250, TC3500, TC3100 Series	
		221-675-2-B	(Requires Adapter)	
	Accuturn	SM102529	Direct Fit On 220A (All Other Models Require 102765 Adapter), 730 Pro	
	Sicam	SM102529	32, 520, 526, 530, 720, 726 Grifone 516 and Colibri 512, Falco 3009	
	Bosch	SM102529	220S, 4225, 4230, 4335, 4465, 4540, 5210, 5320 Direct Fit On 220A (All Other Models Require 102765 Adapter)	

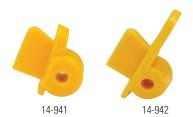


664 and Above

Hunter RP6-710014120 TCA34 with Serial Number 664 and Above

	STAIN	II FSS STFFI II	NSERTS AND BOOTIES
31 Inc.	0EM	0EM Part Number	Tire Changer Model
14-941			Stainless Steel Head
	Accuturn	20011064 24016079	3402, 3450, 3602, 4602 5802HP, 5850HP, 5602
14-942	Yellow Long	Plastic Insert for	Stainless Steel Heads
	Snap-On	EAC0060G76A	All Models
14-943	Plastic Inse	rt for Sicam Tire Cl	hanger (5 Pk)
	Sicam Accuturn Bosch	SM101608	All Models
14-944		r Hunter Steel Mou h TI4096 and TI463	
	Hunter	RP8-11-11400096	TCX Series
14-945	Plastic Long	g Inserts for Stainle	ess Mount and Demount Head (10 Pk)
	Hofmann Snap-On	ST4024181 EAA0247G15A	All Models All Models
14-973 14-973-2			14-9682 Stainless Steel Heads (12 Pk) 14-9682 Stainless Steel Heads (2 Pk)
	Coats	8182961 (2 Pk) 8182963 (12 Pk)	RC100, RC150, RC200, 5030, 5035, 5045, 5040 5050 Series, 5060 Series, 5065 Series, 6050, 6060, 6065, 7050, 7055, 7060, 7065, 7655, 7660, 7665, Baseline BL200, BL300, BL400, BL500, APX 80 and APX90
14-974	Plastic Inse Includes All		Demount Head (10 Pk)
	Coats	89209611	9010, 9024
14-975	Plastic Inse	rts for Mount and	Demount Head (10 Pk)
	Accuturn	20011064	3402, 3450, 3602, 4602, 5802HP, 5850HP, 5602
14-976	Small White	Mount Bootie for	Coats Combo Tool 14-978 (10 Pk)
14-977	Large White	e Demount Bootie f	or Coats Combo Tool 14-978 (10 Pk)





14-972W









TIRE CHANGER ACCESSORIES			
Part Number	Description		
14-931	Bead Lifting Tool		
14-932	Long Sock for 14-931 Bead Lifting Tool (4 Pk)		
14-978	Mount/Demount Combo Tool For Coats 4040, 4050 and other Center Post Changers		
14-979	MX Mounting Clamp for Mounting Low Profile Tires For Use with Rim Clamp Tire Changers		
-			



14-979



MISCELLANEOUS WHEEL SERVICE TOOLS

Part Number	Description
14-982	Chrome Nut Cover Pliers
14-983	32 oz. Rubber Mallet





TIRE CHANGING TOOLS

14-918 **Nut Buddy**

The Nut Buddy manual lug loosener busts loose the most stubborn wheel nuts. Reduces fatigue. For commercial and agricultural wheels.

- Constructed of steel
- Rated output torque 2950 ft lbs. Inside gear ratio 58:1
- Includes two sockets − 1 1/2" and 1 5/16"



14-918

14-919 **Nut Buddy Jr.**

The Nut Buddy Jr. busts loose the most stubborn wheel nuts. For use on cars and light trucks.

- Gear ratio 18:1. Rated output torque 885 ft lbs.
- Three sockets included: 17mm, 19mm, 21mm

LUG LOOSENERS					
Part Number	Description	Socket Sizes	Weight		
14-918	Nut Buddy Lug Loosener	1 1/2" 1 5/16"	19 lbs.		
14-919	Nut Buddy Junior Automotive Lug Loosener	17mm, 19mm 21mm	5 lbs.		



Counteract Stud Cleaning Tools

• Quickly and effectively removes rust and debris from wheel studs using your air wrench or handheld power drill (with included adapter)

COUNTI	ERACT STUD CLEANING TOOLS
Part Number	Size
16-401	SM Stud Cleaning Brush for 12mm, 13mm, 14mm, 16mm
16-402	MD Stud Cleaning Brush for 22mm
16-403	LG Stud Cleaning Brush for 28mm
16-412	12mm Cartridge for SM Stud Brush
16-413	13mm Cartridge for SM Stud Brush
16-414	14mm Cartridge for SM Stud Brush
16-416	16mm Cartridge for SM Stud Brush
16-422	22mm Cartridge for MD Stud Brush
16-428	28mm Cartridge for LG Stud Brush





16-441



Hub Buddy

Impact rated – no need to change tools. Comply with best practice R.I.S.T. procedure. Removes rust, corrosion and other build-up from wheel stud, drums and tire rim. Helps proper torque of lug nuts by removing corrosion. A must for easy and accurate tire balancing.

HUB BUDDY WHEEL & RIM CLEANER			
Part Number	Description	Length	Socket
16-441	Hub Buddy & 1 Cleaning Disk Head	3.75"	1/2" Drive
16-445	Replacement Pads (Pk of 6)		1/2" Drive





16-445

LUG NUTS & SPLINE ADAPTERS

Chrome Lug Nuts

OPEN-END BULGE ACORN			
Part Number	Thread Size	Box Qty	Case Qty
14-850 7/16	7/16"	50	500
14-850 1/2	1/2"	50	500
14-850 12/1.25	12mm 1.25	50	500
14-850 12/1.50	12mm 1.50	50	500
14-850 12/1.75	12mm 1.75	50	500
14-850 14/1.50	14mm 1.50	50	500
14-850 14/2.00	14mm 2.00	50	500
14-850 9/16	9/16"	50	500



BULGE ACORN – 1.38" LONG			
Part Number	Thread Size	Box Qty	Case Oty
14-857 7/16	7/16"	50	500
14-857 1/2	1/2"	50	500
14-857 12/1.25	12mm 1.25	50	500
14-857 12/1.50	12mm 1.50	50	500
14-857 12/1.75	12mm 1.75	50	500
14-857 14/1.50	14mm 1.50	50	500



BULGE ACORN – 1.75" LONG			
Part Number	Thread Size	Box Qty	Case O
14-858 1/2	1/2"	40	400
14-858 12/1.50	12mm 1.50	40	400
14-858 12/1.75	12mm 1.75	40	400
14-858 14/1.50	14mm 1.50	40	400
14-858 14/2.00	14mm 2.00	40	400
14-858 9/16	9/16"	40	400



BULGE ACORN - 1.90" LONG			
Thread Size	Box Qty	Case Qty	
12mm 1.50	30	300	
12mm 1.75	30	300	
14mm 1.50	30	300	
14mm 2.00	30	300	
9/16"	30	300	
	Thread Size 12mm 1.50 12mm 1.75 14mm 1.50 14mm 2.00	Thread Size Box Oty 12mm 1.50 30 12mm 1.75 30 14mm 1.50 30 14mm 2.00 30	



BULGE ACORN – 2.32" LONG			
Part Number	Thread Size	Box Qty	Case Qty
14-860 12/1.75	12mm 1.75	30	300
14-860 14/1.50	14mm 1.50	30	300
14-860 14/2.00	14mm 2.00	30	300



SPLINE ACORN Use Key Adapter 14-861A or 14-861B				
Part Number	Part Number Thread Size Box Qty Case Qty			
14-861 1/2	1/2"	50	500	
14-861 12/1.25	12mm 1.25	50	500	
14-861 12/1.50	12mm 1.50	50	500	
14-861 12/1.75	12mm 1.75	50	500	





Use Key Adapter 14-861A			
Part Number	Thread Size	Box Qty	Case Qty
14-862 1/2	1/2"	50	500
14-862 12/1.25	12mm 1.25	50	500
14-862 12/1.50	12mm 1.50	50	500



Use Key Adapter 14-863A				
Part Number	Thread Size	Box Qty	Case Ot	
14-863 14/1.50	14mm 1.50	50	500	
14-863 14/2.00	14mm 2.00	50	500	
14-863 9/16	9/16"	50	500	



DUPLEX SPLINE ACORN LONG Use Key Adapter 14-863A			
Part Number	Thread Size	Box Qty	Case Oty
14-864 12/1.50	12mm 1.50	40	400
14-864 12/1.75	12mm 1.75	40	400
14-864 14/1.50	14mm 1.50	40	400
14-864 14/2.00	14mm 2.00	40	400

9/16"

TUNER ACORN HEATTREATED

40

400



Use Key Adapter 14-865A or 14-865B			
Part Number	Thread Size	Box Qty	Case Qty
14-865 1/2	1/2"	50	500
14-865 12/1.25	12mm 1.25	50	500
14-865 12/1.50	12mm 1.50	50	500
14-865 14/1.50	14mm 1.50	50	500

14-864 9/16





Spline Adapters

SPLINE & TUNER ADAPTERS

Part Number	Description
14-861A	Key Adapter, 3/4" and 13/16" (6 Spline)
14-861B	Key Adapter, 17mm and 19mm (6 Spline)
14-863A	Key Adapter 13/16" and 7/8" (7 Spline)
14-865A	Socket Adapter, 3/4" and 13/16"
14-865B	Socket Adapter, 17mm and 19mm





Wheel Lock Sets

BULGE A	BULGE ACORN – 1.26" LONG					
Part Number	Thread Size	Box Qty	Case Qty			
14-890 7/16	7/16"	6 Sets	60			
14-890 1/2	1/2"	6 Sets	60			
14-890 12/1.25	12mm 1.25	6 Sets	60			
14-890 12/1.50	12mm 1.50	6 Sets	60			
14-890 14/1.50	14mm 1.50	6 Sets	60			



BULGE ACORN – 1.76" LONG					
Part Number	Thread Size	Box Qty	Case Oty		
14-891 1/2	1/2"	6 Sets	60		
14-891 12/1.50	12mm 1.50	6 Sets	60		
14-891 12/1.75	12mm 1.75	6 Sets	60		
14-891 14/1.50	14mm 1.50	6 Sets	60		
14-891 14/2.00	14mm 2.00	6 Sets	60		

BULGE A	CORN - 1.9	90" LOI	1G
Part Number	Thread Size	Box Qty	Case Oty
14-892 1/2	1/2"	6 Sets	60
14-892 12/1.50	12mm 1.50	6 Sets	60
14-892 12/1.75	12mm 1.75	6 Sets	60
14-892 14/1.50	14mm 1.50	6 Sets	60
14-892 14/2.00	14mm 2.00	6 Sets	60







BULGE ACORN – 2.32" LONG				
Part Number	Thread Size	Box Qty	Case Oty	
14-893 12/1.75	12mm 1.75	6 Sets	60	
14-893 14/1.50	14mm 1.50	6 Sets	60	
14-893 14/2.00	14mm 2.00	6 Sets	60	



2-PIECE ACORN					
Part Number	Thread Size	Box Qty	Case Qty		
14-854 7/16	7/16"	50	500		
14-854 1/2	1/2"	50	500		
14-854 12/1.25	12mm 1.25	50	500		
14-854 12/1.50	12mm 1.50	50	500		
14-854 14/1.50	14mm 1.50	50	500		





Makes TPMS as Simple as...



17-144 **Smart Senor Pro+ Diagnostic/Programming** Tool

THE SMART TPMS SOLUTION

- Only 2 sensors to service more than 95% of all vehicle applications!
- Easy to learn and use with lifetime FREE updates!
- OBDII Module available Relearn Asian vehicles!
- **Program** or **copy** a sensor, using the Pro+ Tool, in just seconds.
- Pro+ Tool is a relearn tool too!
- Snap-in and clamp-in sensors available.
- Smart Sensors can be triggered by other TPMS tools.

SMART SENSOR PRO+TOOLS & ACCESSORIES

Psrt Number	Description			
17-144	Pro+ Diagnostic/Pro	ogramming Tool		
17-144-2	OBDII Module for S	mart Sensor Pro+		
17-144-4	Charger for 17-144 F	Pro+ Tool		
17-43011	315MHz Smart Sens	sor, Snap-In (Green)		
17-43012	433MHz Smart Sens	433MHz Smart Sensor, Snap-In (Brown)		
17-43013	315MHz Smart Sens	315MHz Smart Sensor, Clamp-In (Green)		
17-43014	433MHz Smart Sens	433MHz Smart Sensor, Clamp-In (Brown)		
17-43024		433MHz Auto Locate Smart Sensor (BMW/Chrysler/Mercedes)		
17-43001	Clamp-In Smart Sensor Bundle	1 — Programming Tool (17-144) 4 — 315MHz Sensors (17-43013) 4 — 433MHz Sensors (17-43014)		
17-43006	Snap-In Smart Sensor Bundle	1 — Programming Tool (17-144) 4 — 315MHz Sensors (17-43011) 4 — 433MHz Sensors (17-43012)		

17-144-2

95% **Vehicle Coverage**

OBDII Module for Smart Senor Pro+

17-43012



SMART SENSOR VALVE STEMS
Description
Replacement Snap-In Valve for 17-43011/17-43012
Gloss Black Replacement Valve for 17-43013/17-43014/17-43024
Matte Black Replacement Valve for 17-43013/17-43014/17-43024
Aluminum Replacement Valve for 17-43013/17-43014/17-43024

Polished Chrome Replacement Valve for 17-43013/17-43014/17-43024

17-43016 17-43019



17-43017

17-43018

Part Number

17-43016

17-43017

17-43018 17-43019

17-43020

TECHNICAL APPLICATION DATA

19-122 **TIATPMS Relearn Chart**

- Laminated Heavy-Duty Pages
- Designed for the Shop Environment
- Industry Researched Relearn Procedures
- For Domestic and Import Vehicles



Website Resources

- 31 Inc. Printable PDF Application Chart
 - www.31inc.com/tpms.pdf
 - Color coded to guickly find the right part
 - Updated regularly
- TPMS Part Finder
 - www.31inc.com/partfinder
 - Live make, model, year lookup data
 - Printable PDF relearn procedures

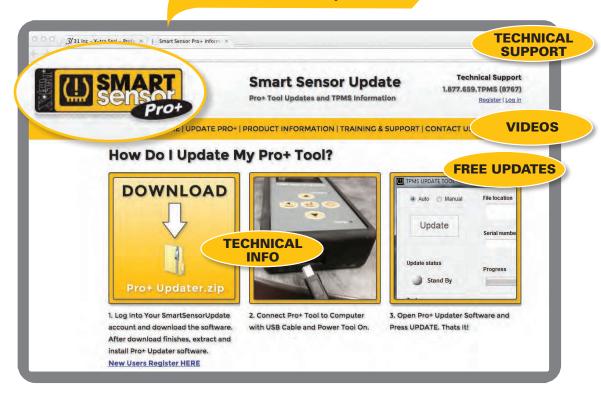
www.SmartSensorUpdate.com

- Quick and easy tool updates
- Tool updates FREE for life
- Stay connected for important helpful information



www.31inc.com/partfinder

www.SmartSensorUpdate.com



TPMS PARTS KIT ASSORTMENTS

Top 10 Most Popular

REPLACE	17-21303 EMENT PARTS ASSORTME	NT
Part Number	General Application*	Ωty
17-20008	Rubber Snap-In Valve GM	8
17-20107AK	GM	8
17-20096AK	Ford	8
17-20018	Rubber Snap-In Valve Ford	8
17-20013AK	Chrysler, Dodge, Jeep	8
17-20028AK	Chrysler, Dodge, Mitsubishi	8
17-20201AK	Chrysler	8
17-20014AK	Nissan, Infiniti	8
17-20204AK	Acura, Honda, Kia	8
17-20206AK	Hyundai, Honda, Kia	8
17-20211AK	Misc. Imports	8
17-20216AK 17-20217AK	Lexus, Toyota Lexus, Toyota	8
17-490T	Nickel Plated TPMS Valve Cores	100
17-1731	Valve Core Torque Tool	1
17-492L-1	Long Black Plastic TPMS Caps	80
17-492T-1	Gray Plastic TPMS Caps	100

17-21303 **Assortment** Includes:

- 104 Service Kits for the Most Popular Domestic and Import Vehicle **TPMS Sensors**
- 100 TPMS Valve Cores
- 180 TPMS Plastic Valve Caps
- TPMS Valve Core Torque Tool



Domestic Vehicles

REPLACE	17-21305 EMENT PARTS ASSORTME	NT
Part Number	General Application*	Ωty
17-20006AK 17-20008 17-20012AK 17-20013AK 17-20015AK 17-20028AK 17-20096AK 17-20107AK 17-20198AK 17-20201AK	GMC, Hummer, Isuzu Rubber Snap-In TPMS valve Prowler & Corvette Chrysler, Dodge, Jeep GM with TRW Clamp-In Chrysler, Dodge, Mitsubishi Ford GM Dodge Sprinter Chrysler	10 20 10 20 10 20 10 20 5
	,	
17-173 17-490T 17-492L-1 17-492T-1	Valve Core Torque Tool Nickel Plated TPMS Valve Cores Long Black Plastic TPMS Caps Gray Plastic TPMS Caps	1 100 100 100

Import Vehicles

REPLACE	17-21306 EMENT PARTS ASSORTME	ENT	
Part Number	General Application*	Ωty	
17-20005AK	Nissan	10	
17-20007AK	Nissan, Infiniti	10	
17-20009AK	Saab, Suzuki	10	
17-20010AK	Volvo	10	
17-20011AK	Subaru	10	
17-20014AK	Nissan, Infiniti	10	
17-20016AK	Mercedes	10	
17-20035AK	Honda 5		
17-20036AK	Acura, Honda, Kia	5	
17-20202AK	Audi, Mercedes, Volkswagen	Audi, Mercedes, Volkswagen 10	
17-20203AK	Audi, Mercedes 5		
17-20204AK	Acura, Honda, Kia	10	
17-20206AK	Hyundai, Honda, Kia	10	
17-20207AK	Volkswagen	10	
17-20211AK	Misc. Imports 10		
17-20216AK	Lexus, Toyota	10	
17-20217AK	Lexus, Toyota 10		
17-20221AK	Lexus SC430 10		

17-21305 **Assortment Includes:**

- 145 Replacement Parts Kits
- 100 TPMS Valve Cores
- 200 TPMS Plastic Valve Caps
- TPMS Valve Core Torque Tool
- Application Chart





17-21306 **Assortment Includes:**

- 165 Replacement Parts Kits
- Application Chart

Includes all of the necessary component parts to service most TPMS sensors for:

- Acura Audi
- Lexus Mercedes

Volkswagen

Imports

Other Miscellaneous

- BMW Nissan
- Honda Saab
- Hyundai
- Subaru

- Infiniti
- Suzuki
- Kia
- Toyota

^{*} Applications are vehicles specific. Visit http://www.31inc.com to find the correct application.

TPMS REPLACEMENT PARTS KITS & VALVE STEMS

Part Number	Оty	Color	Inter	change	Description*
17-20005AK	Box / 10	1	20005	1130K	Parts Kit for Nissan
17-20006AK	Box / 10	1	20006		Parts Kit for GMC, Hummer, Isuzu
17-20007AK	Box / 10	2	20007		Parts Kit for Nissan, Infiniti
17-20008	Box / 10	2	20008	VS950	TPMS Snap-In Valve GM Interchangeable with 17-20018
17-20008-50	Box / 50	2	20008	VS950	TPMS Snap-In Valve GM
17-20008C	Box / 10		22008	VS950S	TPMS Snap-In Valve GM with Chromed Plastic Sleeve
17-20009AK	Box / 10	1	20009		Parts Kit for Saab, Suzuki
17-20010AK	Box / 10	2	20010	2010K	Parts Kit for Volvo
17-20011AK	Box / 10	3	20011		Parts Kit for Subaru
17-20012AK	Box / 10	1	20012	1077K	Parts Kit for Prowler, Corvette
17-20013AK	Box / 10	2	20013	2030K	Parts Kit for Dodge, Jeep, Chrysler
17-20014AK	Box / 10	3	20014		Parts Kit for Nissan, Infiniti
17-20015AK	Box / 10	3	20015	2020K	Parts Kit for GM with TRW Clamp-In Sensor
17-20016AK	Box / 10	1	20016		Parts Kit for Mercedes, Smart
17-20018	Box / 10	2	20018	VS950	TPMS Snap-In Valve Ford Interchangeable with 17-20008
17-20020	Box / 10		20020	9066-1	Stem Only for Chrysler, Dodge, Mercedes
17-20020AK	Box / 10	6		9066K	Parts Kit + Stem for Chrysler, Dodge, Mercedes
17-20028AK	Box / 10	3	20003	1080K	Parts Kit for Chrysler, Dodge, Mitsubishi
17-20035AK	Box / 10	1	20035	1097K	Parts Kit for Honda
17-20036AK	Box / 10	2	20036	1096K	Parts Kit for Acura, Honda, Kia
17-20045	Box / 10				TPMS Snap-In Valve GM – High Speed, Parallel Key
17-20046	Box / 10				TPMS Snap-In Valve, Right Angle Key
17-20096AK	Box / 10	1	20002	1060K	Parts Kit for Ford
17-20107AK	Box / 10	4	20004	1070K	Parts Kit for GM
17-20198AK	Box / 10	4		1098K	Parts Kit for Dodge Sprinter
17-20201AK	Box / 10	5	20030	1050K	Parts Kit for Chrysler, GM
17-20202AK	Box / 10	2	20017	1030K	Parts Kit for Audi, Mercedes, Volkswagen
17-20203AK	Box / 10	3		1040K	Parts Kit for Audi, Mercedes
17-20204AK	Box / 10	3	20019	2040K	Parts Kit for Acura, Honda, Kia
17-20206AK	Box / 10	4	20021	2000K	Parts Kit for Hyundai, Honda Kia
17-20207AK	Box / 10	4		1031K	Parts Kit for Volkswagen
17-20211AK	Box / 10	4	20023	1090K	Parts Kit for Misc. Imports
17-20216AK	Box / 10	1	20032	1100K	Parts Kit for Lexus/Toyota
17-20217AK	Box / 10	2	20031	1110K	Parts Kit for Lexus/Toyota
17-20221AK	Box / 10	3		1120K	Parts Kit for Lexus SC430
17-20223AK	Box / 10				TPMS Valve Kit for GM (SS Corvette)
17-20720AK	Box / 10	5		7020K	Parts Kit 7020 for Jag, Range Rover, Volvo (54190)
17-20725AK	Box / 10	5			Parts Kit + Stem for Continental Sensors
17-50340	Each		20037	1092	590340 Alligator TPMS Kit 43LMS
17-50342	Each		20038	1093	590342 Alligator TPMS Kit 48LMS
17-50344	Each		20039	1094	590344 Alligator TPMS Kit 49LMS
17-50346	Each		20040	1095	590346 Alligator TPMS Kit 51LMS
17-50390	Each				Metal TPMS Valve Stem for Ford
17-50391	Box / 10				TPMS Metal Clamp-In Valve for TRW Screw-In
17-50395	Box / 10			VS65	TRW Snap-In Sensor Rubber Valve Stem, Square Key
17-50396	Each				TPMS Valve for Dodge Ram Dually with Aluminium Wheels
17-50397	Box / 10			VS90	Continental Snap-In Sensor Rubber Valve Stem
17-50399	Box / 10			VS1010	TPMS Snap-In Valve Hyundai

^{*} Applications are vehicles specific. Visit http://www.31inc.com to find the correct application.

TPMS SERVICE KITS











17-20005AK

17-20006AK

17-20007AK

17-20009AK

17-20010AK











17-20011AK

17-20012AK

17-20013AK

17-20014AK

17-20015AK











17-20016AK

17-20028AK

17-20096AK

17-20107AK

17-20201AK











17-20202AK

17-20204AK

17-20206AK

17-20207AK

17-20211AK









Each service kit is barcoded and color coded for easy identification.





TIREtips

Get the latest application information at www.31inc.com/tpms.pdf

Components are application specific. Grommets are not interchangeable. Design is based on OE wheel and sensor fitment.

TPMS VALVE KITS



technician tip

It's Critical to Always Replace (NEVER REUSE) the Special Sealing Components (Core, Cap, Nut, Grommet) **BEST PRACTICE:**

SQUARE KEY

• Rubber grommets are designed for a single use. Over time, they take a shape, and lose their ability to properly seal. They are no different than the rubber washer in your faucet at home. Over time they take a shape and start to leak.

RIGHT ANGLE KEY

- Special TPMS valve cores are designed for use with aluminum TPMS stems. These special cores are coated with an electroless nickel plating that prevent them from oxidizing to the aluminum TPMS stems. Never reuse a valve core, and never use a normal brass valve core with a TPMS sensor. Always replace the core with a new TPMS valve core.
- Always remove the TPMS sensor when servicing the tire/wheel.
- Always replace the Special Sealing Components with a NEW REPLACEMENT PARTS KIT.

TPMS SERVICE TOOLS

17-168 **TPMS Tool Kit Assortment**

- Includes all the small TPMS tools necessary for TPMS service
- Comes in a high-quality blow molded storage case



17-173

17-173 **Valve Core Torque Tool**

- Durable, precision torque tool with a torque specification of 4 in-lbs.
- Use when installing TPMS valve cores to prevent over tightening which can damage the TPMS valve by stripping the valves internal threads or removing the nickel plating of the core resulting in corrosion



- Fast and easy to use.
- Works perfectly on difficult to remove grommets
- Sturdy, large design fits easily in your hands
- Durable poly construction



- Fast, accurate and easy to use
- Use for precise torquing of TPMS nuts to the manufacturers specifications

17-167A **T-10 Torque Tool**

• Precision torque tool with a torque specification of 11.5 in-lbs.

• For use when replacing the rubber snap-in valve stem for some TPMS sensors

17-170 **Grommet Removal Pick**

- Many TPMS valve stems have a design style where the grommet seats within a recessed gap in the aluminum stem, making it difficult to remove by other methods
- The TPMS Grommet Pick guickly and effectively aids in the removal of these hard-to-reach grommets
- Features a hook-angle design with slightly-dull tip for safe and easy removal





17-161A

17-169





BULK VALVE HARDWARE

Each

17-494T

17-601

15-4932

17-493P

TPMS ACCESSORIES



	CARDE	D VALVE I	HARDWA	RE
	PART NO.	CARD QTY.	BOX QTY.	CASE QTY.
	-			
	15-4904	4	6	72
	-			
	15-4922	4	6	72
	-			
١	15-4927	4	6	72
	15-4925	4	6	72
	15-4935	4	6	72
	15-4932	4	6	72
	-			
ì	15-4933	Set	6	72

DESCRIPTION	PART NO.	UNIT QTY
Green O-Ring Identification Ring for Nitrogen	17-489	100
TPMS High Temp Valve Core, Nickel Plated, Red Seal	17-490T	100
TPMS High Temp Valve Core, Nickel Plated, Yellow Seal	17-490TY	100
TR #VC-8, Black Plastic Valve Cap with Red Silicone Seal	17-492-1	100
Dark Green Plastic Valve Cap with Red Silicone Seal	17-492G-1	100
Long Skirted Black Plastic Cap with Seal for 17-20008	17-492L-1	100
Long Skirted Green Plastic Cap with Seal	17-492LG-1	100
Gray Plastic TPMS Valve Cap with Red Silicone Seal	17-492T-1	100
Chromed Plastic Hex Valve Cap with Green Top	17-493NP	100
Chromed Plastic Hex Valve Cap	17-493P	100
Chromed Plastic Sleeve for 17-20008	17-494T	100
Chrome Plastic Sleeve and Cap Set	-	_
Cradle with Clip for Mounting Band	17-21101	Each
Replacement Clip for Mounting Band	17-21102	Each
Mounting Band for Banded Sensors	17-21103	Each

TPMS Sensor Service Tool



17-21102

17-21103 For 14" to 26" wheels • Torque to 27 in-lbs (3 N.m.)

CARDED 15-4904 15-4922 15-4927 15-4925 15-4935 **BULK** 17-489 17-490T 17-490TY 17-492-1 17-492G-1 17-492L-1 17-492LG-1 17-492T-1 17-493NP



17-601 **TPMS Sensor Service Tool**

• Designed to keep the sensor in a safe and secure position after the locking nut has been removed and the sensor is released from the wheel

• The handle of the tool is a 2-way tool: One side is a threaded valve core depressor tool to deflate the tire while the other side is a valve core remover tool

Protects valuable valve stem sensors during tire mounting and demounting

19-130 **TPMS Counter Top Display**

- The perfect sales tool for promoting TPMS service
- Multiple visuals displaying the complexity of a TPMS sensor
- Information to help educate the customer
- Displays both snap-in and clamp-in style sensors
- Exposed electronic components aid in technical aspect of selling TPMS service



VALVE HARDWARE



As one of the largest suppliers of tire valves to the automotive aftermarket, we supply only valves of the highest quality. We utilize our in-house lab as well as independent laboratories to ensure our valves meet or exceed all industry quality standards.

* For box of 50, use part number 17-413-50, etc. For box of 500, use part number 17-413-500, etc.

PASSENGER & LIGHTTRUCK VALVES

TUBELESS SNAP-IN VALVES						
Part Number	TR Number	Material	(A) Height	Valve Hole	Box Qty*	
17-412-50	412	EPDM Rubber	0.88"	.453"	50	
17-413-50	413	EPDM Rubber	1.25"	.453"	50	
17-414-50	414	EPDM Rubber	1.50"	.453"	50	
17-415-50	415	EPDM Rubber	1.25"	.625"	50	
17-418-50	418	EPDM Rubber	2.00"	.453"	50	
17-423-50	423	EPDM Rubber	2.50"	.453"	50	
17-425-50	425	EPDM Rubber	2.00"	.625"	50	

APPLICATION: 65 psi maximum cold inflation pressure and maximum rim thickness of 0.156". NOTE: H, V, W, Y and Z speed rated tires require a metal bolt-in style valve.

^{*} For box of 50, use part number 17-413-50, etc. For box of 500, use part number 17-413-500, etc.

TUBELES	S SNAP-IN	VALVES WITH	CHROME S	SLEEVE &	CAP
Part Number	TR Number	Material	(A) Height	Valve Hole	Box Qty*
17-412-1-50	412C	EPDM Rubber	0.88"	.453"	50
17-413-1-50	413C	EPDM Rubber	1.25"	.453"	50
17-414-1-50	414C	EPDM Rubber	1.50"	.453"	50
17-418-1-50	418C	EPDM Rubber	2.00"	.453"	50

APPLICATION: 65 psi maximum cold inflation pressure and maximum rim thickness of 0.156". NOTE: H, V, W, Y and Z speed rated tires require a metal bolt-in style valve.

^{*} For box of 50, use part number 17-412-1-50, etc. For box of 500, use part number 17-412-1-500, etc.

HIGH PRESSURE SNAP-IN VALVES						
Part Number	TR Number	Material	(A) Height	Valve Hole	Bag Qty*	
17-600HP-50	600HP	Brass/Rubber	1.27"	.453"	50	
17-602HP-50	602HP	Brass/Rubber	2.00"	.453"	50	
17-801HP-50	801HP	Brass/Rubber	1.31"	.625"	50	
17-802HP-50	802HP	Brass/Rubber	2.00"	.625"	50	

APPLICATION: 600HP / 602HP = 80 psi maximum cold inflation pressure and maximum rim thickness of 0.205".

801HP / 802HP = 100 psi maximum cold inflation pressure and maximum rim thickness of 0.205". NOTE: H, V, W, Y and Z speed rated tires require a metal bolt-in style valve.

^{*10} and 500 box qty. available. Add qty. to the part number. Example: 17-600HP-10, 17-600HP-500

TUBE-TYPE REPLACEMENT VALVES						
Part Number	TR Number	Material	(A) Height	Valve Hole	Bag Oty	
17-113	13	EPDM Rubber	1.25"	.453"	1	
17-115	15	EPDM Rubber	1.25"	.625"	1	

APPLICATION: 65 psi maximum cold inflation pressure and maximum rim thickness of 0.156".





17-412-1 17-413-1 17-414-1 17-418-1



17-600HP 17-602HP 17-801HP 17-802HP





