

800-798-1968 SHIELDAG.COM



### **Quality Agricultural Equipment**

#### **Manufacturers of:**

V-Blades • Sweeps • Chisels & Spikes • Disc Blades • Drill Discs & Hoe Drill Points Related Tillage & Planting Hardware • Fertilizer Knives • Shanks • Coulter Blades • Crop Savers Precision Planting Equipment • Conservation Ripper Points • Strip Till Points • Fertilizer Row Units

#### **Distributors of:**

Belted Grain & Fertilizer Conveyors • Salt & Material Handling Conveyors • Seed Handling Equipment Round Baler Belting • Milo Guards & Crop Savers

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#### Warranty

Shield Agricultural Equipment (ShieldAg) and Acra-Plant warrant our products to be free of defects in materials and workmanship for a period of 180 days after the date of end user (consumer) purchase from the dealer. The warranty for whole goods equipment shall be exactly the warranty offered on these products by the original equipment manufacturer, and their individual warranties shall replace this warranty. This warranty does not apply to item(s), equipment or component parts that are found to have been subject to abuse or inadequate maintenance, that have been altered in any way or that have been used beyond their advertised capacity, rating or intended use. This warranty shall be for the repair or replacement of the defective item(s) at the sole discretion of Shield Agricultural Equipment. Any warranty replacement or repairs shall be subject to pro-rated consumer usage deductions as outlined below. Any warranty on tillage items expires after 1/2" of edge wear has occurred. Chrome products are warranted for defects in material and workmanship only, and the pro-rating system and 1/2" edge wear rule does not apply to chrome products. Chrome products are not guaranteed for use in rocky or frozen ground. This warranty does not extend to labor incurred in removal or replacement of any item(s). ShieldAg shall not be liable for incidental or consequential damages arising out of the use or inability to use the item(s) for any purpose whatsoever.

Execution of consumer rights for warranty repair or replacement:

- 1. Consumer must provide the dealer with evidence of date of purchase of the item(s) to be considered for warranty. This evidence shall be in the form of a copy of the invoice or bill of sale for the item(s) and this evidence shall accompany the item(s) alleged to be defective.
- 2. The dealer shall provide ShieldAg with #1, above, and with a copy of the ShieldAg invoice to the dealer for the same item(s).
- 3. The ShieldAg Territory Manager or the dealer shall complete a ShieldAg Returned Goods Authorization (RGA) for the item(s) alleged to be defective. It is the dealer's responsibility to return the item(s) to ShieldAg at the dealer's expense; however, the Territory Manager may elect to return the items(s) to ShieldAg via our truck. Extension of this courtesy does not constitute the final decision to authorize warranty replacement or repair for the item(s).
- 4. Upon receipt of the item(s) alleged to be defective and the RGA, the ShieldAg engineering department will inspect the item(s). The engineering department will have sole discretion to authorize warranty replacement or repair.
- 5. ShieldAg engineering department shall assign the pro-rated wear factors to all item(s) subject to a warranty claim. Since the range of item(s) varies widely, the assignment of pro-rated wear factor deductions shall be done in good faith, working with the ShieldAg Territory Manager, the dealer and the consumer. In general, warranty will be pro-rated for wear up to 1/2" of edge wear on the item(s). Any warranty on tillage items expires after 1/2" of edge wear has occurred. The pro-rating system and 1/2" edge wear rule does not apply to chrome products.
- 6. ShieldAg will at its sole discretion replace or repair the item(s) found to be defective, less the prorated wear factors. ShieldAg will return the item(s) that have been repaired or replaced to the dealer including free return transportation via the mode of our choice.

#### **Notes on Implied Warranties and Limitations**

There is no implied warranty of merchantability or fitness for a particular purpose. Some states do not allow limitations on implied warranties of merchantability or fitness for a particular purpose, so this limitation may not apply in a given state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply in a given state.

#### **Shipments & Returns**

This "Shipments and Returns Policy" outlines the rights and obligations of Shield Agricultural Equipment (ShieldAg) dealers with regards to discrepancies in shipments and returns of unsold items to ShieldAg.

#### **Shipments**

ShieldAg must be informed of any shortages in shipments within ten (10) days of the arrival of that shipment or shipments at the dealer or end user (in the case of drop-shipments from ShieldAg to the end user). Shortages for truck shipments via LTL, UPS or other common carrier should be forwarded to the carrier for adjustment via freight claim. Shortages deemed by ShieldAg corporate office or our Territory Managers to be our responsibility will be corrected through a credit on the account of the dealer or through replacement of the item(s) that were missing from the shipment. It is the sole responsibility of the dealer to count the item(s) received on shipments and to make appropriate claims for shortages within ten (10) days of the receipt of the item(s).

Execution of dealer rights for shipments:

- Dealer shall provide ShieldAg with a copy of the ShieldAg packing slip (pick list) highlighting the item(s) that were alleged to be missing. A copy of the packing slip is to be faxed or mailed to ShieldAg within ten (10) days of the receipt of the shipment.
- 2. The ShieldAg Territory Manager may at our discretion be asked to visit the dealer and examine the shipment and shortage prior to extending credit or replacing the items.
- 3. ShieldAg will at its sole discretion replace the missing item(s) or credit the dealer account for the net dealer cost of the item(s) found to be missing. If replaced, ShieldAg will replace the missing item(s) to the dealer including free return transportation via the mode of our choice.

#### **Returns**

ShieldAg does not have any types of oral or written agreements, contracts or arrangements of any type, between ShieldAg and our dealers or distributors that provide for the rights and obligations of the parties with respect to the purchase or sale of equipment or repair parts, beyond the standard obligations created by purchase orders and acceptance of same, for ShieldAg parts. ShieldAg therefore does not fall under any state's "buy back" laws. ShieldAg will not allow returns for any items purchased as "special order" or non-standard as modified for a custom application. ShieldAg will accept the return of standard-stocked new item(s) originally purchased into dealer or distributor stock from ShieldAg for a period of two (2) years from the date of original purchase from ShieldAg. All items returned must be current to the stream of commerce and not deemed to be obsolete. Returned item(s) in new and merchantable condition shall be subject to a thirty percent (30%) restocking charge. Any item(s) requiring rework, repackaging or repainting will be accepted only with a revised (and increased) restock charge after inspection at ShieldAg.

Execution of dealer or distributor rights for returned goods:

- 1. Dealer or distributor shall provide ShieldAg with a copy of the original invoice for the item(s) to be returned and a written explanation of the reason for return.
- 2. The ShieldAg inside salesperson or territory manager will work with the dealer or distributor to complete a ShieldAg Returned Materials Authorization (RMA), also known in the industry as an RGA (Returned Goods Authorization) for the item(s) to be returned. Upon inspection of the original invoice and the written explanation for return, the ShieldAg Inside salesperson or territory manager will authorize return of the item(s) for inspection and subsequent credit. It is the dealer's responsibility to return the item(s) to ShieldAg at the dealer's expense. Receipt of items does not constitute the final decision to extend returned goods credit for the item(s).
- 3. Upon receipt of the item(s) and the completed RMA (RGA), ShieldAg will inspect the items for merchantability and general condition. Credit on account will only be applied after the items have been inspected and accepted. Credit against the dealer or distributor account receivable will be applied less the thirty percent (30%) restocking charge. There will be no cash refunds for returned items. The ShieldAg territory manager or inside salesperson will communicate (to the dealer or distributor) acceptance (or rejection) of the returned goods and the final credit amount.
- **4.** This Policy dated 12/01/2020 supersedes all previous written or oral Returned Goods polices.



**Acra-Plant** specializes in No-Till & Min-Till planting and drilling equipment, fertilizer application tools, and chisel plow tools. The current awareness and emphasis on No-Till and Min-Till agricultural practices emphasizes our full line of Acra-Plant Precision Planting/Seeding Solutions:

- ADU Acra Drill Unit No-Till drill or planter opener replacement
- Acra-Plant Retrofit Discs No/Min-Till planter opener enhancement
- Acra-Phoenix Zone and Residue Management

## The Six Most Important Characteristics of A Proper Crop Stand, and How Acra-Plant V-Slice Technology Achieves the Goal:

- 1. **Fast Germination:** Seed is dropped precisely into the V-slice formed by the insert yielding superior seed-to-soil contact in moist, firm soil. Seed-to-soil contact is essential for fast germination.
- 2. **Uniform and Fast Emergence:** This occurs when seeds are planted in moisture but not too deep or at varying depths. The V-slice technology assures that the soil is not disturbed beside or below the seed, with less chance of drying out. In No-Till and Min-Till planting environments, the notched discs mellow the soil above the seed and allow for easier plant emergence right above the seed with less opportunity for crusting which inhibits emergence.
- 3. **Early Root Development:** Acra-Plant V-slice inserts and notched retrofit discs create a firm soil environment surrounding the seed to retain moisture and allow for healthy primary root development. Feeder or secondary roots depend on the moisture above the seed as well as healthy primary roots. Tight, uniform seed placement and firm soil right above the seed assist in the retention of moisture for healthy root development.
- 4. Uniform Plant Spacing in the Row: Acra-Plant V-slice technology forms a "V" that traps the seed and stops seed bounce and roll. In the Min-Till and No-Till environments, notched discs assure that he soil is prepared to accept the V-slice insert and form the perfect V. Seeds that do not tumble, roll or bunch assure "picket fence" planting for the most uniform stand.
- 5. **Proper Plant Population:** Acra-Plant minimizes the need for over-planting due to seed loss, skips and bunches. Proper competition for nutrients and availability of sunlight assures the best stand, and the superior performance of Acra-Plant V-slice technology assures the most effective use of planting equipment. Seeds per acre can usually be reduced with the use of Acra-Plant V-slice inserts and notched discs, reducing seed costs while improving the stand.
- 6. **Correct Leaf Position:** Seed kernels caught lengthwise and on the edge in a perfect V-shaped trench germinate with primary roots growing down the row in the angle of the V. Leaves grow perpendicular to the primary root growth, increasing the potential for leaves to grow across the rows for maximum sunlight utilization. Does this sound crazy? Grow some seeds on your windowsill and watch the leaves position themselves with respect to the primary roots.

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#### **Disclaimer:**

This RETAIL PRICE LIST is the manufacturer's Suggested Retail Price Freight and Terms with individual dealers may affect Retail Price

### **Warranty**

Acra-Plant warrants our products to be free of defects in materials and workmanship for a period of 180 days after the date of end user (consumer) purchase from the dealer. The warranty for whole goods equipment shall be exactly the warranty offered on these products by the original equipment manufacturer, and their individual warranties shall replace this warranty. This warranty does not apply to item(s), equipment or component parts that are found to have been subject to abuse or inadequate maintenance, that have been altered in any way or that have been used beyond their advertised capacity, rating or intended use. This warranty shall be for the repair or replacement of the defective item(s) at the sole discretion of Acra-Plant. Any warranty replacement or repairs shall be subject to pro-rated consumer usage deductions as outlined below. Any warranty on tillage items expires after 1/2" of edge wear has occurred. Chrome products are warranted for defects in material and workmanship only, and the pro-rating system and 1/2" edge wear rule does not apply to chrome products. Chrome products are not guaranteed for use in rocky or frozen ground. This warranty does not extend to labor incurred in removal or replacement of any item(s). Acra-Plant shall not be liable for incidental or consequential damages arising out of the use or inability to use the item(s) for any purpose whatsoever.

Execution of consumer rights for warranty repair or replacement:

- 1. Consumer must provide the dealer with evidence of date of purchase of the item(s) to be considered for warranty. This evidence shall be in the form of a copy of the invoice or bill of sale for the item(s) and this evidence shall accompany the item(s) alleged to be defective.
- 2. The dealer shall provide Acra-Plant with #1, above, and with a copy of the Acra-Plant invoice to the dealer for the same item(s).
- 3. The Acra-Plant Territory Manager or the dealer shall complete a Acra-Plant Returned Goods Authorization (RGA) for the item(s) alleged to be defective. It is the dealer's responsibility to return the item(s) to Acra-Plant at the dealer's expense; however, the Territory Manager may elect to return the items(s) to Acra-Plant via our truck. Extension of this courtesy does not constitute the final decision to authorize warranty replacement or repair for the item(s).
- 4. Upon receipt of the item(s) alleged to be defective and the RGA, the Acra-Plant engineering department will inspect the item(s). The engineering department will have sole discretion to authorize warranty replacement or repair.
- 5. Acra-Plant engineering department shall assign the pro-rated wear factors to all item(s) subject to a warranty claim. Since the range of item(s) varies widely, the assignment of pro-rated wear factor deductions shall be done in good faith, working with the Acra-Plant Territory Manager, the dealer and the consumer. In general, warranty will be prorated for wear up to 1/2" of edge wear on the item(s). Any warranty on tillage items expires after 1/2" of edge wear has occurred. The pro-rating system and 1/2" edge wear rule does **not** apply to chrome products.
- 6. Acra-Plant will at its sole discretion replace or repair the item(s) found to be defective, less the pro-rated wear factors. Acra-Plant will return the item(s) that have been repaired or replaced to the dealer including free return transportation via the mode of our choice.

#### **Notes on Implied Warranties and Limitations**

There is no implied warranty of merchantability or fitness for a particular purpose. Some states do not allow limitations on implied warranties of merchantability or fitness for a particular purpose, so this limitation may not apply in a given state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply in a given state. This warranty gives dealers and consumers specific rights. There may be other rights that vary from state to state.

### **Shipments & Returns**

This "Shipments and Returns Policy" outlines the rights and obligations of Acra-Plant dealers with regards to discrepancies in shipments and returns of unsold items to Acra-Plant.

#### **Shipments**

Acra-Plant must be informed of any shortages in shipments within ten (10) days of the arrival of that shipment or shipments at the dealer or end user (in the case of drop-shipments from Acra-Plant to the end user). Shortages for truck shipments via LTL, UPS or other common carrier should be forwarded to the carrier for adjustment via freight claim. Shortages deemed by Acra-Plant corporate office or our Territory Managers to be our responsibility will be corrected through a credit on the account of the dealer or through replacement of the item(s) that were missing from the shipment. It is the sole responsibility of the dealer to count the item(s) received on shipments and to make appropriate claims for shortages within ten (10) days of the receipt of the item(s).

Execution of dealer rights for shipments:

- 1. Dealer shall provide Acra-Plant with a copy of the Acra-Plant packing slip (pick list) highlighting the item(s) that were alleged to be missing. A copy of the packing slip is to be faxed or mailed to Acra-Plant within ten (10) days of the receipt of the shipment.
- 2. The Acra-Plant Territory Manager may at our discretion be asked to visit the dealer and examine the shipment and shortage prior to extending credit or replacing the items.
- 3. Acra-Plant will at its sole discretion replace the missing item(s) or credit the dealer account for the net dealer cost of the item(s) found to be missing. If replaced, Acra-Plant will replace the missing item(s) to the dealer including free return transportation via the mode of our choice.

#### Returns

Acra-Plant will accept the return of new item(s) originally purchased into dealer stock from Acra-Plant for a period of one (1) year from the date of original purchase from Acra-Plant. Any acceptance of new item(s) older than one (1) year shall be subject to individual negotiation by the Territory Manager and corporate management of Acra-Plant. Acra-Plant reserves the right to refuse or accept returned merchandise. All items returned must be current to the stream of commerce in the geography where originally sold to the dealer and not deemed to be obsolete due to acts of nature or naturally occurring changes in consumer preference. All new items returned shall be in merchantable condition and shall not require repackaging, rework or repainting. Returned item(s) shall be subject to a twenty percent (20%) restocking charge. Returned item(s) shall not be accepted unless authorized in advance and in writing according to the "Execution of dealer rights for returned goods" outlined below.

Execution of dealer rights for returned goods:

- 1. Dealer shall provide Acra-Plant with a copy of the original invoice for the item(s) to be returned and a written explanation of the reason for return.
- 2. The Acra-Plant Territory Manager or the dealer shall complete a Acra-Plant Returned Goods Authorization (RGA) for the item(s) to be returned. Upon inspection of the original invoice and the written explanation for return, the Territory Manager will authorize return of the item(s) for inspection and subsequent credit. It is the dealer's responsibility to return the item(s) to Acra-Plant at the dealer's expense; however, the Territory Manager may elect to return the items(s) to Acra-Plant via our truck. Extension of this courtesy does not constitute the final decision to extend return credit for the item(s).
- 3. Upon receipt of the item(s) and the RGA, Acra-Plant will inspect the items for merchantability and general condition. Credit on account will only be applied after the items have been inspected and accepted. Credit against the dealer account receivable will be applied less the twenty percent (20%) restocking charge. There will be no cash refunds for returned items. The Territory Manager will communicate (to the dealer) acceptance (or rejection) of the returned goods and the final credit amount.

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# Acra-Plant will convert your existing planter to efficiently manage residue and fertilizer placement in your No-Till crop rotation.

Acra-Plant offers planter-mounted zone tillage, residue managers and 2 X 2 No-Till liquid fertilizer placement systems for all modern row crop planters. Customize your planter for virtually any No-Till environment.

#### **Acra-Phoenix™ System**

#### Zone Tillage, Residue Management & Fertilizer System

The Phoenix System is a compact, convenient planter enhancement that allows you to move quickly between a combination of Acra's versatile soil residue and fertilizer management tools in response to a wide variety of soil, residue, and tillage conditions. It features a single vertical adjusting stem that attaches to a wide variety of planter models, and a multi-position tool mounting bracket which allows you to quickly change between Zone Managers™, Trash Whippers® and Acra-Place® Fertilizer Discs.

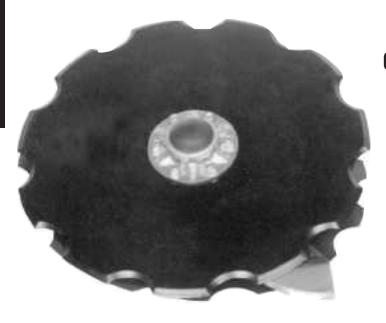
Zone Manager is the ultimate in Zone Tillage and Residue Management. In no-till and minimum-till conditions, the heavy-duty fingers aggressively toss aside residue to clear a uniform planting zone in front of the Acra-Plant Fertilizer and notched double disc seed opener blades. The Zone Manager system's replaceable high-carbon steel fingers pull soil into the finger overlap area and till it to create a positive environment for good seed-to-soil contact. Residue is cleared aside as the fingers exit and the newly tilled soil is repositioned in a critical planting zone adjustable up to seven inches wide and two to three inches deep. Soil furrowing is very minimal due to the special angles and surfaces of the triangular tines. The wheels can be mounted offset or side-by-side position based on your field conditions. Scrapers help prevent plugging in the heaviest field conditions. Zone Manager tines are bolted on individually so they can be easily replaced if they become damaged.

Trash Whippers move clods and residue aside, creating a level path for the planter depth gauge wheels and providing a uniform seed depth. Clearing the residue from the planting zone allows quicker seedbed warming and faster seed germination. The Trash Whipper system is equipped with notched discs that aggressively keep turning to prevent plugging. By alternating lead notched discs, planter side draft is minimized.

Acra-Place Fertilizer System has an independent cam-adjust depth control that allows you to fine-tune the depth of the fertilizer placement. A 12" notched blade running at a slight angle to the soil clears the way for the cutting insert to place the low pressure liquid fertilizer 2-5/8" away from the seed. A small amount of soil is gently moved in the direction away from the seed zone, minimizing the disturbance to the seed-to-soil contact.



# No-Till Now with Acra-Plant Opener Retrofit Discs



Convert your standard planter
to a No-Till machine without
increasing row unit downpressure and without the high
cost of residue management
systems or coulters

- Discs are 4mm thick and constructed of chrome-boron-moly steel alloy to handle the abuse seen in No-Till planting
- Alternating 11- and 15-notch discs aggressively slice through the toughest residue and hardest ground without hairpinning
- Discs shed wet/sticky soils without excessive use of power-robbing scrapers
- Heavy-Duty Gothic Arch bearing design extends wear life and resists the loads that tear up seed tubes
- Complete your No-Till Retrofit package with the V-slice insert required for your planter model

#### Special Features of Acra Plant No-Till/Min-Till Planter Opener Disc Retrofit Kit

- 1. The two disc blades in the set each have a different number of notches, 15 notches on one blade and 11 notches on the other. This assures that the blades will self-turn instead of skidding over old crop residue, and the blade notches overlap as they work together to actually CUT the trash ahead of the V-slice opener system. This feature converts the planter openers to a true NO-TILL operation that is equally suited for Minimum Till and Conservation Tillage plans.
- 2. The disc blades themselves are up to 50% thicker than the smooth OEM blades that they replace. Combine that with the Chrome Boron Moly alloy, and you get a strength and durability unmatched by other replacement blades. Cutting through heavy residue and trash acre after acre requires tough, durable, and thick opener blades. Acra Plant answers the call to duty with these retrofit blades.
- 3. Note that the opener discs feature a flat ground edge, rather than the cheaper alternative of hollow grinding the edge. Flat grinding a true bevel allows the blades to self sharpen as they wear, rather than immediately going dull.
- 4. The bearings used in Acra Plant opener discs are of the true Gothic Arch design. Gothic Arch 4-race bearings cost more, but they allow the bearings to transmit radial load, exial thrust 8

allow the bearings to transmit radial load, axial thrust & overturning moments to a much greater extent than the cheaper twin-race ball bearings.

 The alloy casting V-slice opener that actually produces the uniform seed trench is made of 25% chrome for longer life and durability.

For	<b>specific</b>	model	retrofit	discs
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#### Acra-Phoenix/Acra-Place Systems John Deere, Kinze, White & CaselH Planters

#### **Standard Pin-Adjust System**

When ordering the standard Pin-Adjust System, select appropriate mount bracket(s) and the desired planter enhancements. Optional Vari-Just System and replacement parts are available. Universal Rigid Mount is available, consult with the factory.

#### **Pin-Adjust Systems**

Part #	Description	Weight
AP-249749	Face Mount Pin-Adjust System	
	(JD, Kinze & White)	14.00
AP-249740	CaseIH Mount Pin-Adjust System (CaseIH)	12.00

Note: Universal Rigid Mount available, consult with factory for ordering information.

#### **Zone Manager**

AP-692001

Kit #	Desc	ription	Weight
AP-JDFZMA	Fac	e Mount Zone Manager	82.00
	(JD,	Kinze & White)	
AP-CAFZMA	Cas	elH Mount Zone Manager (CaselH)	82.00
Kit consists of:			
AP-249749	1	Face Mount Pin-Adjust System or	
AP-249740	1	CaselH Mount Pin-Adjust System	
AP-244206	1	Universal attachment bracket	
AP-241214L	1	Zone wheel assembly LH	
AP-241214R	1	Zone wheel assembly RH	
AP-244128L	1	Zone Manager scraper kit LH	
AP-244128R	1	Zone Manager scraper kit RH	
AP-501645	1	Zone Manager mount bracket LH	
AP-501644	1	Zone Manager mount bracket RH	

Note: Universal Rigid Mount available, consult with factory for ordering information.

#### **Zone Manager & Acra-Place**

Kit #	Desc	cription	
AP-JDFZMAPR	Fac	e Mount Zone Manager &	
	Acra	a-Place RH (JD, Kinze & White)	
AP-JDFZMAPL	Fac	e Mount Zone Manager & Acra-Place LH	
AP-CAFZMPR	Cas	selH Mount Zone Manager & Acra-Place RH	
	(Cas	selH)	
AP-CAFZMPL	Cas	selH Mount Zone Manager & Acra-Place LH	F-1 325
Kit consists of:		<u> </u>	1//
AP-249749	1	Face Mount Pin-Adjust System or	
AP-249740	1	CaseIH Mount Pin-Adjust System	A 100 100 100 100
AP-244206	1	Universal attachment bracket	A THE OWNER
AP-241214L	1	Zone wheel assembly LH	design of
AP-241214R	1	Zone wheel assembly RH	
AP-244128L	1	Zone Manager scraper kit LH	
AP-244128R	1	Zone Manager scraper kit RH	
AP-501645	1	Zone Manager mount bracket LH	- \d # and
AP-501644	1	Zone Manager mount bracket RH	
AP-692000	1	Acra-Place, RH or	

Note: When ordering Acra-Place units 1/2 of your ordered quantity should be for the right side kit and 1/2 for the left side kit. Universal Rigid Mount available, consult with factory for ordering information.

Acra-Place, LH



# Acra-Phoenix/Acra-Place Systems John Deere, Kinze, White & CaselH Planters



#### **Trash Whipper**

Part #	Descr	iption	Weight
AP-JDFTWA	Face	Mount Trash Whipper	52.0
	(JD,	Kinze, White)	
AP-CAFTWA	Case	eIH Mount Trash Whipper (CaseIH)	52.0
Kit consists of:			
AP-249749	1	Face Mount Pin-Adjust System or	
AP-249740	1	CaselH Mount Pin-Adjust System	
AP-244206	1	Universal attachment bracket	
AP-201012*	1 or 2	12" notched disc double bearings	
AP-201013	1	13" notched disc double bearings	
AP-501697	1	Trash Whipper mount bracket LH or	
AP-501696	1	Trash Whipper mount bracket RH	

\*CaselH planters use 2 of AP-201012.

Note: Universal Rigid Mount available, consult with factory for ordering information.



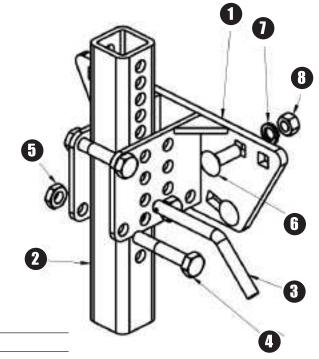
#### Trash Whipper & Acra-Place

Part #	Description
AP-JDFTWAPR	Face Mount Trash Whipper & Acra-Place RH (JD, Kinze, White)
	Face Mount Trash Whipper & Acra-Place LH (JD, White, Kinze)
AP-CAFTWAPR	Face Mount Trash Whipper & Acra-Place RH (CaselH)
	Face Mount Trash Whipper & Acra-Place LH (JD, Kinze, White)
Kit consists of:	
AP-249749 1	Face Mount Pin-Adjust System or
AP-249740 1	CaselH Mount Pin-Adjust System
AP-244206 1	Universal attachment bracket
AP-241251 1	Trash Whipper wheel mounts
AP-201012* 1 o	or 2 12" notched disc double bearings – face mount
AP-201013 1	13" notched disc double bearings – face mount
AP-692000 1	Acra-Place, RH or
AP-692001 1	Acra-Place, LH
AP-501697	Trash Whipper mount bracket LH
AP-501696 1	Trash Whipper mount bracket RH

\*CaseIH planters use 2 of AP-201012.

Note: Universal Rigid Mount available, consult with factory for ordering information.

# Acra-Phoenix System Replacement Parts John Deere 7000–1700; Kinze 2000–3000; White 5000, 6000 or 8000

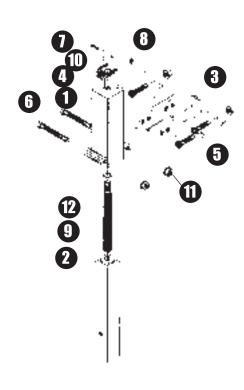


#### AP-249749 — Standard Face Mount Pin-Adjust System

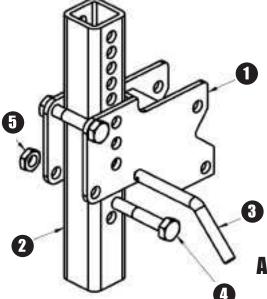
Part #	Qty Req	Description
AP-249751	1	Pin-Adjust Face Mount Weld
AP-249750	1	Pin-adjust stem 2
AP-500552	1	L pin 1/2" x 3" with hairpin cotter   ●
AP-500493	2	Bolt, HHCS, 1/2" x 3" G5/zinc
AP-500600	2	Nut, hex rev lock, 1/2" zinc
AP-500428	4	Bolt, carriage, 1/2" x 1-1/2", G5 zinc <b>⑤</b>
LW4	4	Washer, split lock, 1/2" plated <b>●</b>
N4	4	Hex nut, 1/2 NC, plated   ●

#### AP-249700 – Optional Face Mount Vari-Just System 2~

Part #	Qty Req	Description
AP-249702	1	External stem •
AP-249704	1	Internal stem weldment 2
AP-249706	1	Face mount plate 3
AP-249707	1	Nut locking assembly •
AP-500427	4	Bolt, carriage, 1/2" x 1-3/4" <b>●</b>
AP-500497	2	Bolt, HHCS, 1/2" x 4" <sup>⑤</sup>
AP-500661	1	Spring pin, 1/4" x 1" <b>①</b>
AP-500690	1	Grease fitting, threaded, 1/4"-28
AP-510774	1	Vari-Just adjusting screw 9
AP-510776	1	Locking nut •
LW4	6	Washer, split lock, 1/2" (not shown)
N4	6	Nut, hex, 1/2", plated 0
SHIM	2	Shim, 1"OD x 5/8"1D x 1/16" thick €



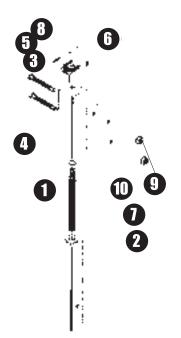
#### Acra-Phoenix System Replacement Parts CaselH 800, 900 & 1200 Series



#### AP-249740 — Standard CaselH Mount Pin-Adjust System

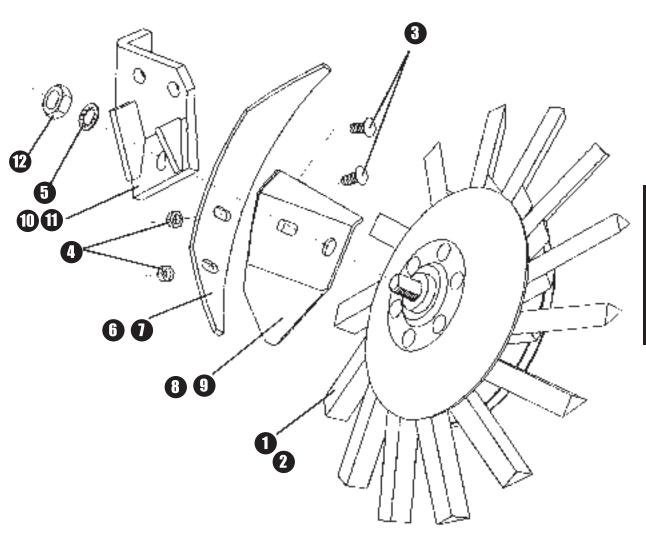
Part #	Qty Req	Description
AP-249741	1	CaselH Pin-Adjust Mount Assembly
AP-249750	1	Pin-adjust stem 2
AP-500552	1	Pin 1/2" x 3" w/hairpin cotter <b>3</b>
AP-500493	2	Bolt, HHCS, 1/2" x 3" G5/zinc   ●
AP-500600	2	Nut, hex rev lock, 1/2" zinc





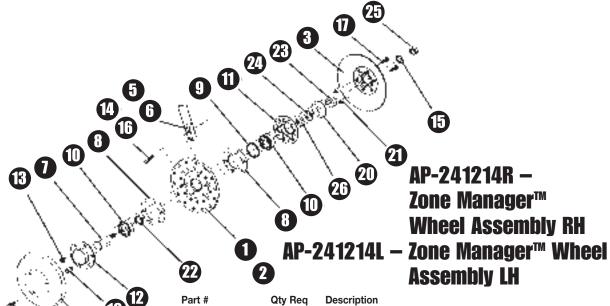
#### AP-249710 – Optional CaselH Mount Vari-Just System 2

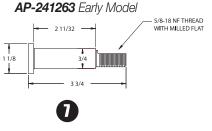
Part #	Qty Req	Description
AP-249701	1	Vari-Just external stem <b>①</b>
AP-249704	1	Vari-Just internal stem weldment
AP-249707	1	Vari-Just nut locking assembly <sup>3</sup>
AP-500497	2	Bolt, HHCS, 1/2" x 4" ♥
AP-500661	1	Spring pin, 1/4" x 1" •
AP-500690	1	Grease fitting, threaded, 1/4"-28 6
AP-510774	1	Vari-Just adjusting screw   ●
AP-510776	1	Vari-Just nut locking nut <sup>3</sup>
LW4	2	Washer, split lock, 1/2" (not shown)
N4	2	Nut, hex, 1/2", plated 9
SHIM	2	Shim, 1"OD x 5/8"1D x 1/16" thick •



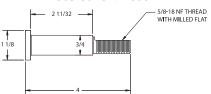
#### **Zone Manager™ Assembly**

Part #	Qty Req	Description
AP-241214R	1	Zone wheel assembly, RH •
AP-241214L	1	Zone wheel assembly, LH •
AP-500401	2	Bolt, carriage, 5/16″-18 NC x .75″ G5 <b>●</b>
AP-500582	2	Nut, top lock, 5/16" NC 4
AP-500619	2	Washer, flat 5/16" (not shown)
AP-500633	1	Washer, internal tooth, 5/8" 5
AP-501618	1	Zone Manager scraper blade, RH 6
AP-501619	1	Zone Manager scraper blade, LH •
AP-501620	1	Zone Manager scraper mount weldment, RH 0
AP-501621	1	Zone Manager scraper mount weldment, LH 9
AP-501644	1	Zone Manager mounting bracket, RH
AP-501645	1	Zone Manager mounting bracket, LH •
AP-510745	1	Nut, hex jam, 5/8"-18-NF @

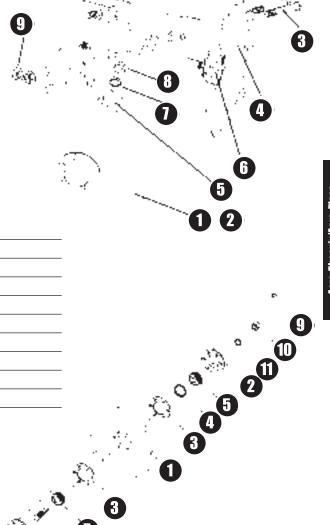




#### AP-241363 Current Model



Part #	Qty Req	Description
AP-241206	1	Zone wheel tine mounting plate, RH 1
AP-241207	1	Zone wheel tine mounting plate, LH 2
AP-241208	1	Zone wheel inner cover plate
AP-241209	1	Zone wheel outer cover plate •
AP-241218	14	Zone wheel finger, RH 6
AP-241217	14	Zone wheel finger, LH 6
AP-241263	1	Bearing stud, zone wheel, 3/4" •
AP-299050	2	Bearing flange gasket
AP-299051	1	Bearing ring, 2"OD x .12" x .121" thick 9
AP-299054	2	Bearing, 3/4" trash whipper •
AP-299143	1	Bearing flange inner, open end, flat 0
AP-299164	1	Bearing flange outer, closed end, flat @
AP-500582	3	Nut, top lock, 5/16" NC ®
AP-500631	28	Washer, internal tooth, 3/8" @
AP-500633	1	Washer, internal tooth, 5/8" 6
AP-510695	28	Bolt, HHCS, 3/8" x 1" NF 6
AP-510696	6	Bolt, carriage, 5/16"-18NC x 2" G5 zinc <b>™</b>
<u>AP-510697</u>	3	Bolt, serrated flange, 5/16"-18NC x 1/2" ®
AP-510698	3	Nut, coupling 5/16"-18NC x 1-1/8" zinc
AP-510700	1	Zone wheel dust cover 2.3"OD x 3/4"1D x 1/16" @
AP-510701	6	Zone wheel spacer, .343'1D x .625''OD x .92'' 4
AP510702	1	Zone wheel spacer .7811D x 1.250D x .205 @
AP-510703	1	Zone wheel spacer, 7501D x 1.312"OD X .562" @
AP-510704	1	Zone Wheel spacer, .761D x 1.250D x .100
AP-510745	1	Nut, hex, jam, 5/8"-18NF G8 @
AP-510784	1	Zone wheel rubber seal, 1.25" x 1.5" x 1/8" @



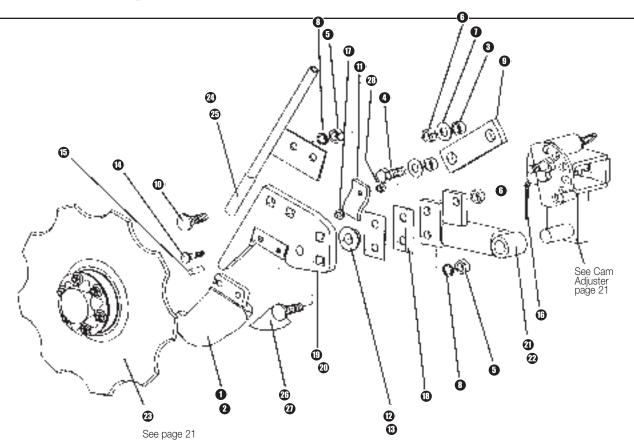
#### **Trash Whipper® & Mount**

Part #	Qty Req	Description
AP-201012	1	12" Trash Whipper disc assembly
AP-201013	1	13" Trash Whipper disc assembly 2
AP-500497	4	Bolt, HHCS, 1/2" x 4" 3
AP-501646	1	Phoenix bracket weldment •
AP-501696	1	Trash Whipper mounting bracket, RH <sup>1</sup>
AP-501697	1	Trash Whipper mounting bracket, LH 6
AP-500633	1	Washer, internal tooth 5/8"
AP-510745	1	Nut, hex jam 5/8"-18NF G8 <sup>3</sup>
AP-500584	4	Nut, top lock, 1/2″NC ●



Part #	Qty Req	Description
AP-201112	1	12" notched blade only   12" notched blade only
AP-201113	1	13" notched blade only   13"
AP-299043	1	TW disc bearing flange open 2
AP-299050	2	Gasket 3
AP-299051	1	Retainer ring •
AP-299054	2	Bearing Trash Whipper •
AP-299063	1	Stud bolt 3/4" double 6
AP-299064	1	TW disc bearing flange closed
AP-500401	6	5/16" x 3/4" carriage bolt   Output  Description:
AP-500582	6	5/16 NC serrated flange nut 9
AP-500606	1	5/8"NF nylon insert lock nut
AP-500633	1	5/8" diameter internal star washer 0

#### **Acra-Phoenix Replacement Parts**



# AP-692000 Acra-Place RH Blade & Cam Assembly AP-692001 Acra-Place LH Blade & Cam Assembly

(Right-Hand Depicted)

Part #	Qty Req	Description	Retail \$
AP-API4R	1	'97 Acra-Place insert, RH   ●	
AP-API4L	1	'97 Acra-Place insert, LH 2	
AP-227005	5 2	Pivot spacer 3	
AP-500488	3 1	1/2" x1-1/2" NC HHCS 4	
N4	4	1/2" NC full finish hex nut 6	
AP-500600	) 2	1/2" NC two way lock nut 6	
AP-500620	) 2	1/2" diameter SAE flat washer •	
LW4	4	1/2" diameter lock washer •	
AP-501670	) 1	Bar adjuster link arm 9	
AP-501679	3	Mount bolt 1/2" carriage	
AP-501745	5 1	Bar adjust <b>0</b>	
AP-510745	5 1	5/8"-28NF hex jam nut @	
AP-500633	3 1	Washer, internal tooth 5/8" ®	
AP-510636	3 1	5/16" x 1-3/4" carriage bolt 49	
AP-510693	3 1	5/16" x 1" spring pin 19	

Part # Q	ty Req	Description
AP-510733	1	Cotter pin 3/16" x 2" 10
AP-510825	1	Insert bumper •
AP-510826	2	Adjusting shim
AP-692007	1	Insert Mount, LH
AP-692008	1	Insert Mount RH @
AP-692009	1	Pivot arm, LH 4
AP-692010	1	Pivot arm, RH
AP-692011	1	Disc assembly, 12" Acra-Place '97 @
AP-692015	1	Delivery tube, RH @
AP-692016	1	Delivery tube, LH @
AP-692024	1	Deflector RH @
AP-692023	1	Deflector LH 2
LN2	1	5/16" nylon lock nut @

#### Stand Alone Acra-Place® Fertilizer Placement System

The Stand Alone Acra-Place Fertilizer System is designed to face mount on any row crop planter using the 2" standard Face Mount Pin-Adjust or Vari-Just Stem systems or to replace older Acra-Place systems using the 1-1/2" Vari-Just Stem already in place on the planter. The Stand Alone System has all of the features found on the Acra Phoenix Acra-Place systems but without the added expense of the zone manager or trash whipper systems. The 12" notched chrome boron blade and chrome carbide insert provide positive liquid fertilizer placement in a simple package.

\*Note: When ordering Acra-Place Units, half of your ordered quantity should be for right side and half should be for the left side kits. Please specify 1-1/2" or 2" stem.

#### Acra-Place 2"

Part #	Description
AP-692002	2" stand alone Acra-Place, left-hand
AP-692003	2" stand alone Acra-Place, right-hand



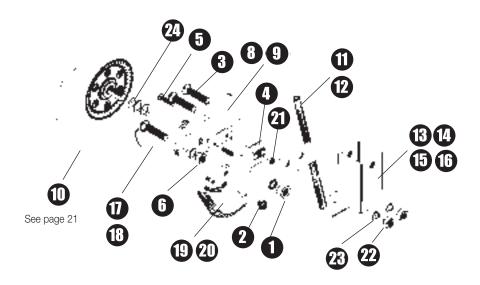
Acra-Place 2' systems require these planter mounts:	CURRENT
AP-249749 Pin-Adjust Stem/bracket (JD, White, Kinze)	Page 11
AP-249740 Pin-Adjust Stem/bracket (Casell-	l)Page 11
AP-249700 Vari-Just Stem/bracket (JD, Whit	e, Kinze)Page 13

AP-249710 Vari-Just Stem/bracket (CaselH)......Page 14

Part #	Description
AP-692004	1-1/2" stand alone Acra-Place, left-hand
AP-692005	1-1/2" stand alone Acra-Place, right-hand

# Acra-Place 1-1/2" systems retrofit older planters with existing 1-1/2" Acra-Place or Nutri-Till Stems

Specify the system already in place on the planter when ordering 1-1/2" systems



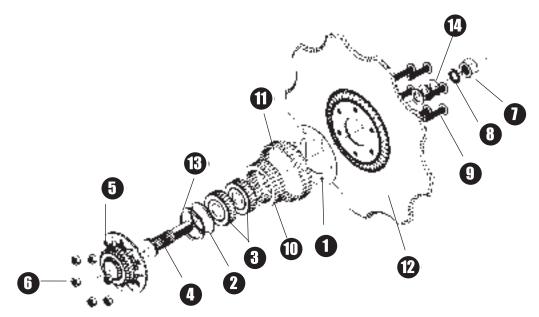
CURRENT

AP-692002 — 2" Stand Alone Acra-Place® Left Hand AP-692003 — 2" Stand Alone Acra-Place® Right Hand

NOT CURRENT

AP-692004 — 1-1/2" Stand Alone Acra-Place® Left Hand AP-692005 — 1-1/2" Stand Alone Acra-Place® Right Hand

Part #	Qty Req	Description
AP-510745	1	Nut, hex jam, G8, 5/8" NF ●
AP-500633	1	Washer, internal tooth, 5/8" <b>②</b>
AP-501679	2	Mount bolt, carriage, 1/2" x 1-1/2"   ●
AP-501745	1	Bar adjust •
AP-510636	1	Bolt, carriage, 5/16" x 1.75" 6
AP-510693	1	Spring pin, 5/16" x 1.0" <b>⑤</b>
AP-510825	1	Acra-Place insert bumper   Output  Description:
AP-692007	1	Acra-Place insert mount, LH <sup>10</sup>
AP-692008	1	Acra-Place insert mount, RH 9
AP-692011	1	Disc assembly, 12" x 9 notch Acra-Place
AP-692015	1	Acra-Place delivery tube, LH 0
AP-692016	1	Acra-Place delivery tube, RH @
AP-692019	1	Acra-Place mount 2", LH 191
AP-692020	1	Acra-Place mount 2", RH 00
AP-692021	1	Acra-Place mount 1-1/2", LH <sup>19</sup>
AP-692022	1	Acra-Place mount 1-1/2", RH <sup>10</sup>
AP-692023	1	Acra-Place bearing deflector, LH <sup>10</sup>
AP-692024	1	Acra-Place bearing deflector, RH ®
AP-API4L	1	'97 Acra-Place insert, LH <sup>19</sup>
AP-API4R	2	'97 Acra-Place insert, RH @
LN2	1	Nut, nylon lock, 5/16" 4
N4	3	Nut, hex, 1/2" plated @
LW4	3	Washer, split lock 1/2" @
SHIM	3	Shim, 1" OD x 5/8"1D x 1/16" thick @



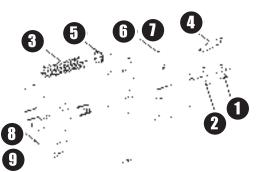
#### **AP-692011 Acra-Place® Blade**

Qty Req	Description
1	Bearing flange gasket •
1	Bearing ring, 2"OD x .12" x .121" thick 2
2	Bearing, 3/4" •
1	Bearing stud, 3/4" •
1	Bearing flange, outer, closed end •
6	Nut, top lock 5/16" NC   O
1	Nut, hex jam G8, 5/8" •
1	Washer, internal tooth, 5/8″ <b>●</b>
6	Cap screw, button head, 5/16" x 1.5" ●
1	Acra-Place bearing spacer inner •
1	Acra-Place bearing spacer outer •
1	Disc blade, offset, 12" x 9 notch @
1	Bearing ring, 2"OD x .12" x .171"
	thick black <sup>®</sup>
3	Shim, 1"OD x 5/81D x 1/16" thick @
	1 1 2 1 1 6 1 1 6 1 1 1

#### **Acra-Place Cam Adjuster**

#### (Right-Hand Depicted)

, 0		,	
Part #	Qty Req	Description	
AP-500600	1	1/2" diameter two way lock nut 1	
AP-500620	1	Washer 1/2" <b>②</b>	
AP-510765	1	Spring .6″1D x 2.75″ long <b>3</b>	
AP-510766	1	Split ring •	
AP-510824	1	Seal •	
AP-692013	1	Mounting bracket LH 6	
AP-692014	1	Mounting bracket RH    Mounting bracket RH	
AP-692017	1	Adjuster LH <sup>3</sup>	
AP-692018	1	Adjuster RH 9	



#### Disclaimer:

This RETAIL PRICE LIST is the manufacturer's Suggested Retail Price Freight and Terms with individual dealers may affect Retail Price

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#### **John Deere 7000–1700 Series Planter Enhancements**

#### **Pin-Adjust System**

When ordering the standard Pin-Adjust System, select appropriate mount bracket(s) and the desired Planter Enhancements. Vari-Just System is available as an option, and replacement parts are available. Universal Rigid Mount is also available.

#### Face Mount (Single 2" Stem)

Part #	Description	Weight
AP-249700	Face-mount pin-adjust system	19.00



#### Residue Manager (Double Disc) Trash Whippers

When ordering the standard Pin-Adjust System, select appropriate mount bracket(s) and the desired Planter Enhancements. Vari-Just System is available as an option, and replacement parts are available. Universal Rigid Mount is also available.

Part #	Description	Weight
AP-249716	2" disc mount bracket* (standard)	8.00
AP-242006	2" extended disc mount bracket* (option)	9.00
AP-201012	12" notched disc double bearing	6.25
AP-201013	13" notched disc double bearing	7.00

<sup>\*</sup>Specify standard or extended bracket

Note: For Universal Rigid Mount order AP-241020 Mount Bracket and S-1336 Shank 1  $\times$  3. See Acra-Phoenix Replacement Parts for assembly break down on AP-201012 and AP-201013. Consult factory to retrofit residue managers to old-style 1-1/2" stems.

#### **V-Slice Insert**

Part #	Description	Weight
AP-001785	V-Slice insert	2.00
AP-001985XP	V-Slice Insert for 1700-series XP row units	2.24
AP-001785Clip	Seed tube clip, recommended for XP row units	0.25
AP-001772	Tube extension bracket*	0.25

<sup>\*</sup>When a straight tube is being used, it is necessary to order tube extension bracket (AP-001772) listed above.

#### **Notched Retrofit Disc** (Heavy Duty, Self Cleaning)

Part #	Description	Weight
AP-001711	15" 11-notch disc	7.50
AP-001715	15" 15-notch disc	7.50

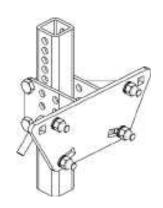
Note: One 11-Notch Disc and one 15-Notch Disc are required per row. V-Slice Insert (AP-001785) must always be used when using Notched Disc Set.

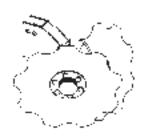
See the following Planter Enhancements – Replacement Assemblies for assembly break down. See page 27 for parts.

#### **Notched Marker Blades**

Part #	Description	Weight
AP-430000	13" marker blade assembly	7.25

Note: See the following Planter Enhancements - Replacement Assemblies for assembly break down.





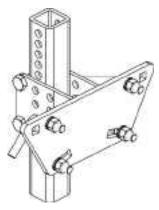


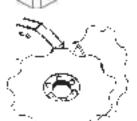






#### **Kinze 2000 & 3000 Series Planter Enhancements**













#### **Pin-Adjust System**

When ordering the standard Pin-Adjust System, select appropriate mount bracket(s) and the desired Planter Enhancements. Vari-Just System is available as an option, and replacement parts are available. Universal Rigid Mount is also available.

#### Face Mount (Single 2" Stem)

Part #	Description	Weight
AP-249700	Face-mount pin-adjust system	19.00

Note: See Acra-Phoenix™ Replacement Parts for assembly break down.

#### Residue Manager (Double Disc) Trash Whippers

Part #	Description	Weight
AP-249716	2" disc mount bracket* (standard)	8.00
AP-242006	2" extended disc mount bracket* (option)	9.00
AP-201012	12" notched disc double bearing	6.25
AP-201013	13" notched disc double bearing	7.00

Note: For Universal Rigid Mount order AP-241020 Mount Bracket and S-1336 Shank 1 x 3. See Acra-Phoenix Replacement Parts for assembly break down on AP-201012 and AP-201013. Consult factory to retrofit residue managers to old-style 1-1/2" stems.

#### **V-Slice Insert**

Part #	Description	Weight
AP-001885	Kinze 3000 Series v-slice opener	2.00
AP-001785	Kinze 2000 Series v-slice insert	2.00
AP-001785Clip	Seed tube clip	0.25
AP-001772	Tube extension bracket*	0.25

\*Note: When a straight tube is being used, it is necessary to order tube extension bracket (AP-001772) listed above

#### **Notched Retrofit Disc** (Heavy Duty, Self Cleaning)

Part #	Description	Weight
AP-001711	15" 11-notch disc	7.50
AP-001715	15" 15-notch disc	7.50

Note: One 11-Notch Disc and one 15-Notch Disc are required per row. V-Slice Insert (AP-001785) must always be used when using Notched Disc Set. See page 27 for parts.

#### **Notched Marker Blades**

Part #	Description	Weight
AP-430000	13" marker blade assembly	7.25

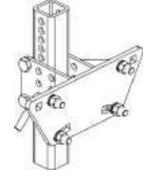
#### **Pin-Adjust System**

When ordering the standard Pin-Adjust System, select appropriate mount bracket(s) and the desired Planter Enhancements. Vari-Just System is available as an option, and replacement parts are available. Universal Rigid Mount is also available.

#### Face Mount (Single 2" Stem)

Description	Weight
Face-mount pin-adjust system	19.00
-	'



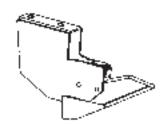


#### Residue Manager (Double Disc) Trash Whippers

Part #	Description	Weight
AP-249716	2" disc mount bracket* (standard)	8.00
AP-242006	2" extended disc mount bracket* (option)	9.00
AP-201012	12" notched disc double bearing	6.25
AP-201013	13" notched disc double bearing	7.00

<sup>\*</sup>Specify standard or extended bracket

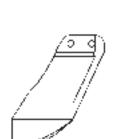
Note: For Universal Rigid Mount order AP-241020 Mount Bracket and S-1336 Shank 1 x 3. See Acra-Phoenix Replacement Parts for assembly break down on AP-201012 and AP-201013. Consult factory to retrofit residue managers to old-style 1-1/2" stems.



#### V-Slice Attachment White 5100, 5700 Seed Boss

Part #	Description	Weight	
AP-034550	V-51 slicing attachment	3.63	
AP-410602	V-Slice insert	1.04	

See page 29 for parts breakdown. Note: 5100 & 5700 use 14" retrofit discs.



#### V-Slice Insert White 6100 through 8000 Series

Part #	Description	
AP-001685	V-Slice insert, White	1.88

Note: 6100-8000 use 15" retrofit discs.

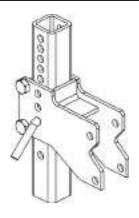


Part #	Description	Weight
AP-001711	15" 11-notch disc (6100-8000)	7.50
AP-001715	15" 15-notch disc (6100-8000)	7.50
AP-009811	14" 11-notch disc (5100 & 5700)	7.50
AP-009815	14" 15-notch disc (5100 & 5700)	7.50

Note: V-slice insert (AP-001685) must always be used when using notched discs. The 15-notch disc should be the lead disc. See page 27 for parts.



#### **CaseIH 800, 900 & 1200 Series Planter Enhancements**



#### **Pin-Adjust System**

When ordering the standard Pin-Adjust System, select appropriate mount bracket(s) and the desired Planter Enhancements. Vari-Just System is available as an option, and replacement parts are available. Universal Rigid Mount is also available.

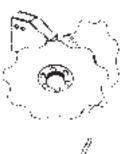
#### Face Mount (Single 2" Stem)

Part #	Description	Weight
AP-249740	CaselH Mount Pin-Adjust System	25.00

Note: For CaselH 800, 900 & 1200 12- or 16-row horizontal rear fold two of #238052 must be purchased. These linkages are to be mounted on rows 1 and 12 for 12-row planters and rows 3 and 14 for 16-row planters. (Units behind Trunnions.)

See Acra-Phoenix™ Replacement Parts for assembly breakdown.

Part #	Description	
AP-238052	6" ext. linkage IHC 800, 900 & 1200	37.00

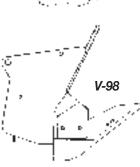


#### Residue Manager (Double Disc) Trash Whippers

Part #	Description	Weight
AP-249716 2" disc mount bracket* (standard)		8.00
AP-242006	2" extended disc mount bracket* (option)	9.00
AP-201012	12" notched disc double bearing	6.25
AP-201013	13" notched disc double bearing	7.00

<sup>\*</sup>Specify standard or extended bracket

Note: For Universal Rigid Mount order AP-241020 Mount Bracket and S-1336 Shank 1 x 3. See Acra-Phoenix Replacement Parts for assembly break down on AP-201012 and AP-201013. Consult factory to retrofit residue managers to old-style 1-1/2" stems.



#### **V-Slice Inserts**

Part #	Description	Weight
AP-009840	V-98 slicing attachment,	4.67
	(Case 800, 900 & 1200) See page 29 for parts	
AP-410601	IER3 V-slice insert	1.28
AP-009040	V-9 slice attachment	
	(Case 400 & 500 offset disc) See page 30 for parts	
AP-410100	V-9 V-slice insert and hardware	1.01
AP-009150	V-91 V-slice attachment	
	(Case 400 & 500 straight disc) See page 30 for parts	
AP-410901	V-91 V-slice insert and hardware	0.76



#### **Notched Retrofit Disc** (Heavy Duty, Self Cleaning)

Part #	Description	
AP-009811	14" 11-notch disc	7.50
AP-009815	14" 15-notch disc	7.50

Note: The 15-Notch Disc should be the lead disc. V-Slice inserts must always be used when using Notched Disc. See page 27 for parts.

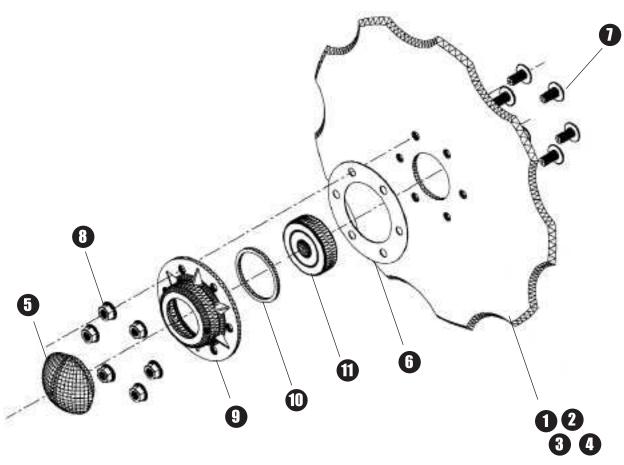


#### **Notched Marker Disc**

Part #	Description	Weight
AP-CAMARKER	Marker disc for IHC 800	18.00
Kit consists of: 2 – 43000	0 13" Marker Disc" 2 – 430001 Marker Bracket for IHC 800.	
Part #	Description	Weight
AP-CAMARKER2	Marker disc for IHC 900	18.00
Kit consists of: 2 – 43000	0 13" Marker Disc" 2 – 430002 Marker Bracket for IHC 900.	



#### **Planter Enhancements — Replacement Parts**



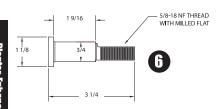
Replacement Parts for the following retrofit Blade assemblies:

AP-001711 15 X 11-Notch for JD, White & Kinze
AP-001715 15 X 15-Notch for JD, White & Kinze
AP-009811 14 X 11-Notch for CaseIH & White 5000 Series
AP-009815 14 X 15-Notch for CaseIH & White 5000 Series

Part #	Qty Req	Description
AP-502001	1	15"x 11 notch disc JD, Kinze, White   ●
AP-502004	1	15" x 15 notch disc JD, Kinze, White 2
AP-500240	1	14" x 11 notch disc
		CaseIH & White 5000 Series 3
AP-500241	1	14" x 15 notch disc
		CaseIH & White 5000 Series
AP-001744	1	Plastic hub cap •
AP-299050	1	Gasket 6
AP-500448	6	5/16" x 5/8" button head cap screw ●
AP-500582	6	5/16 NC top lock nut
AP-299143	1	Bearing, flange inner (open end) flat
AP-299051	1	Bearing ring 2"OD x .12" x .12" 0
AP-502002	1	Bearing, 5/8" •
SHIM	2	5/8" diameter 18ga shim (not shown)

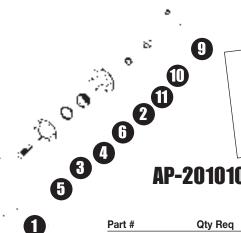






#### AP-430000 – Marker Disc

Part #	Qty Req	Description
AP-201113	1	13" notched blade only 10
AP-299043	1	Bearing flange open 2
AP-299050	2	Gasket 3
AP-299051	1	Retainer ring •
AP-299054	2	Bearing Trash Whipper •
AP-299063	1	Stud bolt 3/4" double
AP-299064	1	Bearing flange closed
AP-500155	1	Stud lock plate (not shown)
AP-500401	6	5/16" x 3/4" carriage bolt
AP-500582	6	5/16 NC top lock nut 9
AP-500606	1	5/81NF nylon insert lock nut
AP-500633	1	5/8" diameter internal star washer •

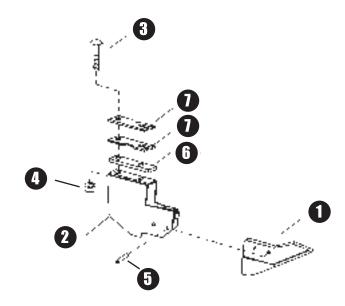


10-1/2" Single Bearing Trash Whippers
have been replaced by
12" & 13" Double Bearing Assemblies
All parts are available to service 10-1/2"
Single Bearing Units

#### AP-201010 - 10-1/2" Single Bearing Trash Whipper Blade

11/8	5/8-18 NF THREAD WITH MILLED FLAT
1 15/16	

Part #	Qty Req	Description
AP-201110	1	10-1/2" notched blade only 1
AP-299043	1	TW disc bearing flange open 2
AP-299050	2	Gasket 3
AP-299051	1	Retainer ring •
AP-299053	1	Stud bolt 3/4" single •
AP-299054	1	Bearing trash whipper 6
AP-299065	1	Cover plate painted   O
AP-500448	6	5/16" x 3/4"NC button head <b>3</b>
AP-500582	6	5/16 NC serrated flange nut 9
AP-510745	1	5/8´NF hex jam nut •
AP-500633	1	5/8" diameter internal star washer •

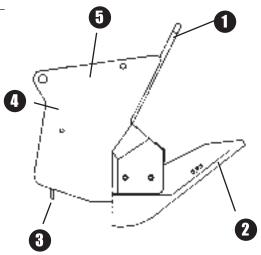


#### AP-034550 - V-Slice Opener

#### White 5100 & 5700

Part #	Qty Req	Description
AP-410602	1	V-51 slicing insert with pins
AP-034558	1	Weld, body 2
AP-500409	2	3/8″NC x 1-1/2 "carriage bolt   ●
LN3	2	3/8 NC nylock lock nut 4
SP1	2	1/4" x 3/4" MTB pin <b>⑤</b>
AP-501212	1	Body spacer 6
AP-501213	2	Adjusting wedge

Note: for best results in Min-Till or No-Till conditions, use with AP-009811 and AP-009815. See page 26.

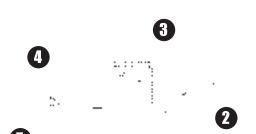


#### AP-009840 — V-98 V-Slice Attachment

#### Case 800, 900 & 1200

Part #	Qty Req	Description
AP-009868	1	V-98 body weldment •
AP-410601	1	IER3 V-slice insert with pins 2
AP-500668	3	Chain, 5 link 3
AP-510672	1	Spring pin, 3/16" x 1-3/8" <b>●</b>
AP-500649	1	Spirol pin, 1/4" x 1-3/8" 5
AP-715523	1	Seed tube (not shown)

Note: for best results in Min-Till or No-Till conditions, use with AP-009811 and AP-009815. See page 26.



#### AP-009040 - V-Slice Opener

#### Case 400/500 Offset Disc

Part #	Qty Req	Description
AP-410100	1	Slicing stub with hardware •
AP-009042	1	Replacement scraper 009040 2
AP-009043	1	Adapter 009040 3
AP-009068	1	Weld, V-9 body •
AP-500411	1	3/8 NC x 2" carriage bolt
AP-500455	1	5/16 NC x 1" HHCS
AP-500541	1	3/8" x 2" hook bolt
AP-500574	1	5/16 NC full finish hex nut
AP-500581	1	3/8 NC top lock nut
AP-500590	2	3/81NC top lock jam nut
AP-500612	1	1/4" diameter flat washer
AP-500638	1	5/8" diameter 14ga NR machine bushing
AP-510672	1	3/16" x 1-3/8" spring pin
AP-500668	3	Chain, 5 links long •

Note: for best results in Min-Till or No-Till conditions, use with AP-009811 and AP-009815. See page 26.



#### AP-009150 - V-Slice Opener

#### Case 400/500 Straight Disc

Part #	Qty Req	Description
AP-410901	1	Insert V-Slice with hardware
AP-009145	1	7/16" x 4-1/2" special pin
AP-009152	1	Replacement scraper 009150 2
AP-009153	1	Adapter 009150 3
AP-009168	1	Weld, body V-91 4
AP-500408	3	3/8" x 1" carriage bolt
AP-500450	1	1/4"NC x 1/2 HHCS
AP-500568	1	1/4"NC square nut
AP-500581	1	3/8 NC top lock nut
AP-500590	2	3/8 NC top lock jam nut
AP-500630	1	1/4" diameter internal star washer
AP-500638	1	5/8" diameter 14ga NR machine bushing
AP-510672	1	3/16" x 1-3/8" MTB spring pin
AP-500668	3	Chain, 5 links long •

Note: for best results in Min-Till or No-Till conditions, use with AP-009811 and AP-009815. See page 26.

#### AP-100040 - Tandem Blade Opener

Designed for Models: John Deere 290, 490, 494, 494A, 1200, 1300,

495, 695, 895, 71, 71 Flex, 71B Flex, 24B, 25B, 23, B, C, F, R, 44, 51, 246, 247, 446,

447, 493

IH 400 Cyclo, 500 Cyclo, 295, 296, 386, 54, 56, 58, 66, 86, 186, 455, 186 Hilldrop, 296,

386 Hilldrop, 185Flex, 449A, 450

AC 52, 62, 70, 72, 102, 112

White 5400 Plantaire, Ford 352, 254

**MF 37** 

Part #	Qty Req	Description
AP-410000	1	10-C slicing edge with hardware
AP-410100	1	Slicing stub with j bolt 2
AP-104068	1	Stainless steel body 3
AP-500541	1	3/8" x 2" hook bolt
AP-500547	1	3/8" x 2-1/4" square head bolt
AP-500581	2	3/8 NC top lock nut
AP-440000	1	Dirt guard for 100040

Note: Most older planters will require adapter for first-time installation. Consult factory for availability. AP-298000 and AP-298001 lifters (not shown) available on request.

#### **AP-959600 - Lister**

**Designed for Models: Buffalo Till** 

John Deere 60, 800 Series, 300 Series, 187,

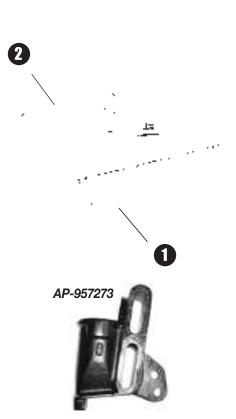
6100

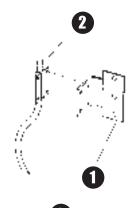
IH 80, 82, 109, 465, 87, 185

Dempster IH Cyclo 92

Part #	Qty Req	Description
AP-954141	1	7C slicing edge with hardware
AP-500523	2	7/16" x 1-3/4" NC serrated flange bolt
AP-500541	1	3/8" x 2" hook bolt F. body
AP-500581	1	3/8´NC top lock nut
AP-500583	2	7/16 NC top lock nut
AP-959606	1	Lister body only 2
AP-957273	2	Lister Adapter

Note: Most older planters will require adapter for first-time installation. Consult factory for availability.





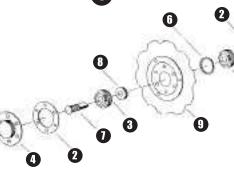
#### AP-699031 - Nutri-Till Tube Kit

Part #	Qty Req	Description
AP-500405	4	1/4" x 5/8" carriage bolt Gr. 5
AP-500580	4	1/4 NC top lock nut
AP-698133	1	Tube mount bracket •
AP-699033	1	Weld, steel tube with mount 2

NOT CURRENT, But all parts serviced

#### AP-698031 — Nutri-Till Tube Kit

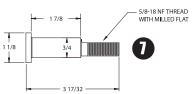
Part #	Qty Req	Description
AP-500430	4	1/4" x 1/2" carriage bolt Gr. 5
AP-500580	4	1/4"NC top lock nut
AP-698013	1	Tube mount bracket •
AP-699033	1	Weld, steel tube with mount 2



AP-699015, AP-699110, AP-699111, AP-699115 Nutri-Till Disc Assemblies

Part #	Qty Req	Description
AP-299143	1	TW disc bearing flange open   ●
AP-299050	2	Gasket 2
AP-299054	2	Bearing nutri-till 3
AP-299164	1	TW disc bearing flange closed •
AP-500402	6	5/16" x 1" carriage Gr. 5 (not shown)
AP-500523	2	7/16" x 1-3/4"NC serrated flange bolt (not shown)
AP-500582	6	5/16 NC top lock nut (not shown)
AP-500583	2	7/16 NC top lock nut (not shown)
AP-500606	1	5/8´NF nylon insert lock nut 5
AP-500633	1	5/8" diameter internal star washer (not shown)
AP-698043	1	NT bearing flange, open (not shown)
AP-698051	1	Retaining ring •
AP-698063	1	NT bearing stud   O
AP-698065	1	Bearing spacer    Bearing spacer
AP-699114	1	9" notched sub assembly 9
AP-699016	1	NT stem VJ/VP 2 hole   O







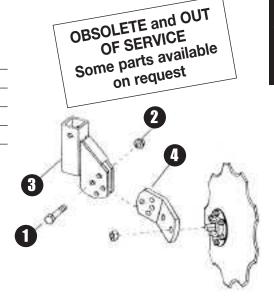
#### AP-691200 - 12" Fertilizer System

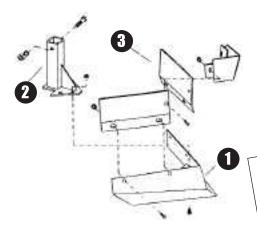
Part #	Qty Req	Description
AP-298001	1	Weldment lifter •
AP-500416	2	3/8" x 1-1/4" carriage bolt
AP-500463	2	3/8" x 1-1/4"NC HHCS
AP-500493	2	1/2" x 3"NC HHCS
N2	2	3/8 NC full finish hex nut
N4	2	1/2´NC full finish hex nut
AP-500581	2	3/8´NC top lock nut
AP-500613	2	3/8" diameter washer
AP-500624	2	3/8" diameter lock washer
LW4	2	1/2" diameter lock washer
AP-691211	1	Trash lifter support 2
AP-691212	1	Support arm
AP-691213	1	Weld, fertilizer tube 4
AP-691214	1	Assembly, 12" disc with flanges   ●
AP-691216	1	1" x 3" shank 12" fertilizer 10
AP-691217	1	Weld, arm support •

#### AP-243006 - Ridge Manager

Part #	Qty Req	Description
AP-500490	2	1/2" x 2"NC HHCS <b>1</b>
AP-500584	2	1/2 NC top lock nut 2
AP-501368	1	Weld, ridge till TW <b>3</b>
AP-501369	1	Plate, arm ridge till TW •

Note: 1ea AP-201012 12" Trash Whipper Disc Asssembly is the recommended stock replacement disc



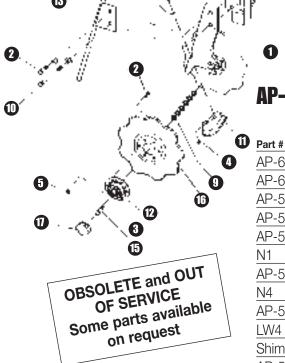


#### **AP-241095 - Acra Sweep**

Part #	Qty Req	Description
AP-241090	1	15" Acra Sweep lower plates   15"
AP-241092	1	Assembly, universal mounting stem 2
AP-241094	1	15" Acra Sweep upper plates

OBSOLETE and OUT OF SERVICE No parts available





Part #	Qty Req	Description	
AP-691007	1	Stem, disc mount RH 1	
AP-691008	1	Stem, disc mount LH 0	
AP-500448	12	5/16" x 5/8" button head cap screw (not shown)	
AP-500489	2	1/2" x 3/4" NC HHCS 2	
AP-500501	1	5/8" x 1-1/2"NC RH HHCS 3	
N1	1	1/4"NC square nut •	
AP-500582	12	5/16" NC top lock nut 6	
N4	2	1/2"NC full finish hex nut 6	
AP-500620	1	1/2" diameter flat washer •	
LW4	2	1/2" diameter lock washer   O	
Shim	16	5/8" x 1-1/4" 15ga machine bushing   •	
AP-500655	2	5/16" x 3/4" spirol pin (not shown)	
AP-501026	1	1/2" x 7" HHCS <b>©</b>	
AP-691015	2	10-1/2" AP disc less stem	
AP-691042	1	Acra Place insert 1992 0	
AP-691030	2	Acra Place bearing assembly @	
AP-691036	1	Weld, fertilizer tube	
AP-510560	1	1/4" x 2-1/2" HHCS <b>(0</b>	
AP-510563	1	5/8" x 1-5/8"NC LH HHCS 😉	
AP-691009	2	10-1/2" 9-notch disc, painted 6	
AP-691044	2	Hub cap aluminum 0	

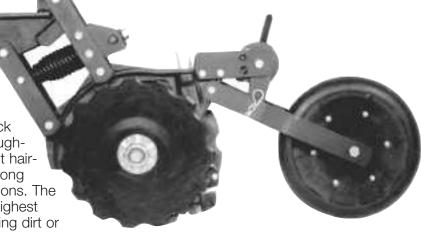
(RH & LH)

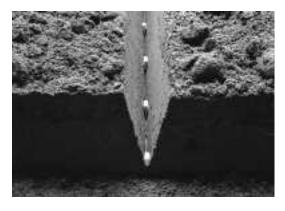
# No-Till Now with the Acra Drill Unit

Convert your existing grain drill or row unit to a narrow profile state-of-the-art No-Till seeding unit. Or build your own air seeder using proven Acra-Plant No-Till technology:

 Heavy Duty Construction with Industry-First High Strength Ductile Iron Center Body to take the abuse seen in No-Till planting/seeding. All main pivots are bushed to provide long life.

 Alternating 11- and 15-notch 4mm thick discs aggressively slice through the toughest residue and hardest ground without hairpinning. Gothic arch bearings provide long life regardless of your operating conditions. The ADU was designed to operate at the highest ground speeds possible without throwing dirt or dragging trash.





- V-slice technology produces perfect seed-to-soil contact in the most difficult planting conditions. "Plant the Stand" to save on seed, knowing that your germination rate will increase dramatically.
- ADU mounts are available for virtually any grain drill, row unit or air seeder frame. Wide variety of press wheels to match your crop rotation and ground conditions.

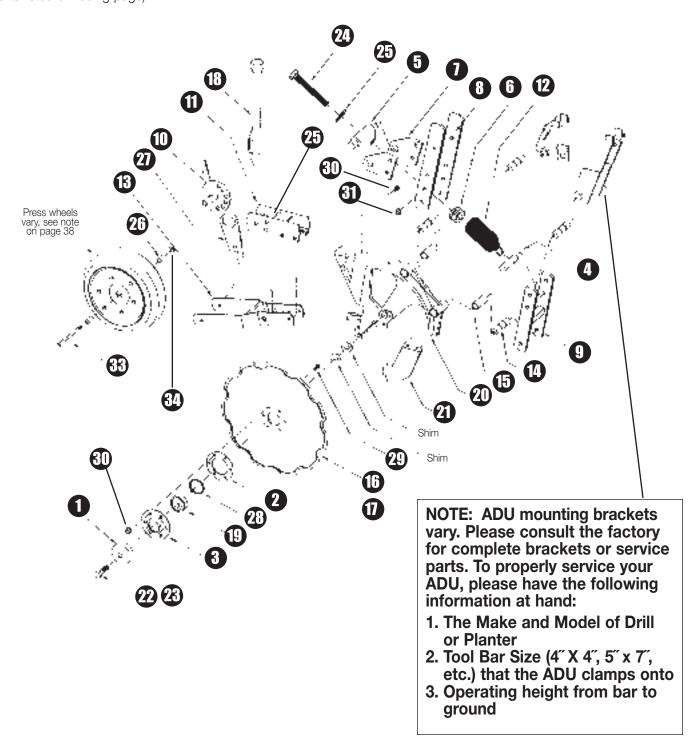
#### **Acra-Drill Unit Standard Mount**

Kit #	Description	Weight
AP-ADU3X3VG	ADU for 3" x 3" bar with 4" v-groove press wheel	98.00
AP-ADU3X3P	ADU for 3" x 3" bar with 2" peaked press wheel	98.00
AP-ADUEX3X3VG	ADU extended mount 3" x 3" with 4" v-groove press wheel	102.00
AP-ADUEX3XBP	ADU extended mount 3" x 3" bar with 2" peaked press wheel	102.00
AP-ADUIH500VG	ADU IHC 500 with 4" v-groove press wheel	96.00
AP-ADUIH500P	ADU IHC 500 with 2" peaked press wheel	96.00
AP-ADU4X4VG	ADU 4" x 4" bar with 4" v-groove press wheel	112.00
AP-ADU4X4P	ADU 4" x 4" bar 2" peaked press wheel	112.00
AP-ADU4SLVG	ADU 4" x 4" swivel with 4" v-grove press wheel	119.00
AP-ADU4SLP	ADU 4" x 4" swivel with 2" peaked press wheel	119.00

Note: Other mountings available, consult the factory for details

#### **Acra-Drill Unit**

(Parts listed on facing page)



#### Acra-Drill Unit (Illustration on facing page)

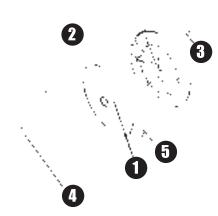
Part #	Qty Req	Description
AP-299041	2	Dust cover 0
AP-299050	2	Bearing, flange gasket 2
AP-299143	2	Bearing, flange inner 3
AP-300011	1	Bushing, large spring mount 4
AP-300039	1	Spring anchor bar •
AP-300055	1	Spring nut 1.8 ID. painted 6
AP-300056	2	Plate, spring anchor •
AP-300112	2	Bar, upper link arm (standard) •
AP-300121	1	Weld, lower link arm
AP-300122L	1	Weld, ADU press wheel adjuster •
AP-300123	1	Weld, ADU heel bracket '97 0
AP-300196	1	Spring @
AP-300413	1	Weld, double axle arm ®
AP-300527	4	Hinge bushing <b>O</b>
AP-300537	4	Bushing 1" OD. x 3/41D 6
AP-301111	1	ADU disc 11-notch (right hand, shown) ©
AP-301115	1	ADU disc 15-notch (left hand, not shown)
AP-301112	1	Seed tube with protector ®
AP-301155	2	Bearing, 5/8" bore ®
AP-302132	1	ADU center body with clips @
AP-331100	1	Insert JDI3 with bolts and nuts @
AP-500506	1	5/8" x 2-1/2" LH HHCS (left hand, not shown)
AP-500510	1	5/8" x 2-1/2" RH HHCS (right hand, shown)
AP-500512	1	5/8" x 4-1/2" all thread HHCS <b>②</b>
AP-500621	1	5/8" diameter SAE washer ®
AP-501540	2	Spacer ®
AP-505031		Bar, height adjuster <b>3</b>
AP-500506	<del>.</del>	HHCS left-hand 5/8" x 2.5" (not shown)
AP-500451	1	Bolt carriage, 1/4" x 0.75" (not shown)
LN1	1	Nut, nylon lock, .0250 1/4" (not shown)
AP-698051	2	Spacer ring <sup>40</sup>
AP-500448	12	Cap screw, button head 5/16" x 3/4" @
AP-500484	1	Bolt, HHCS 7/16" x 5-1/2"
AP-500582	12	Nut, top lock, 5/16" NC @
AP-500584	5	Nut, top lock 1/2"
AP-500499	4	1/2" x 5-1/2" NC HHCS (not shown)
AP-510679	4	Bolt, carriage 7/16" x 1.25" <b>⑤</b>
AP-500583	8	Nut, top lock 7/16" NC @
AP-500481	3	Bolt HHCS 7/16" x 3.5" G5 zinc (not shown)
AP-501559 AP-510764	2	Adjuster pin spacer tube (not shown)  Pull pin (not shown)
AP-510765	2	Cam Adjuster spring .6" x 2.5" (not shown)
AP-510766	2	Cam Adjuster split ring (not shown)
AP-500495		Bolt, HHCS 1/2" x 3.5" G5 zinc (not shown)
AP-500552	1	Adjuster pull pin with hairpin clip (not shown)
AP-510716	1	5/8" x 6-1/2" NC HHCS ூ
LN5	1	Nut, nylon lock 5/8″ ூ
Shim	14	Shim 1" x 5/8" x 1/16" (not shown)

Consult factory for optional heavy duty down pressure double spring assembly

For replacement disc assemblies order AP-301151 (15" x 11 notch) and AP-301152 (15" x 15 notch) Note: Acra-Drill Units are supplied with a wide variety of press wheel options that are customized to suit the individual No-Till plan and crop rotation. We cannot possibly list all of the options that have been used over the years. When ordering replacement parts, please have the following information at hand:

- 1. Measurement of wheel diameter, width, and rib style.
- 2. Bearing style water pump or 40mm.
- 3. Metal or Plastic Wheel.

With this information, the factory will be able to service your Acra-Drill Unit properly.

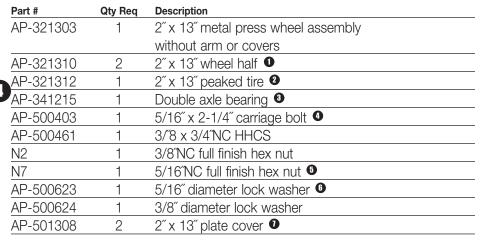


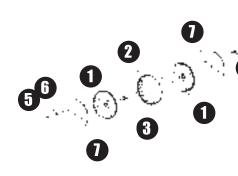
#### AP-510712 - 2 x 13 Press Wheel AP-510723 - 4 x 12 Press Wheel AP-510827 - 3 x 13 Press Wheel

Part #	Qty Req	Description
AP-505618	1	Bearing, 40mm •
AP-Varies	2	Nylon wheel, half, varies with model 2
AP-Varies	6	1/4´NC flange bolt, length varies with model 3
AP-500580	6	1/4"NC top lock nut   1/4"NC top lock nut
AP-Varies	1	Press wheel, varies with model 6
		the first of the second

Note: Other press wheels available, consult with factory

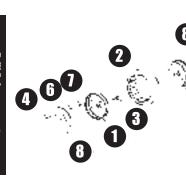
#### **AP-300421 – 2 x 13 Press Wheel** (Prior to 1997)





#### **AP-300423 – 4 x 12 Press Wheel** (Prior to 1997)

	Part #	Qty Req	Description
	<b>5</b> AP-32120	2 1	4" x 12" press wheel assembly without arm
6			or covers
	AP-321210	2	4" x 12" wheel half (2 required)   ●
	AP-321212	1	Depressed center 4" x 12" tire <b>②</b>
	AP-341215	1	Double axle with bearing assembly 3
	AP-500454	1	5/16" x 3/4"NC HHCS •
	AP-500458	1	5/16" x 2-1/2"NC HHCS •
	N7	1	5/16 NC full finish hex nut
	AP-500623	2	5/16" diameter lock washer 6
	AP-500772	1	5/16"-18NC internal thread sleeve   •
	AP-501307	1	4" x 12" plate cover



AP-300125 Conversion Kit

## AP-300125 — Depth Adjustment Conversion Kit for ADUs Manufactured Before 1997

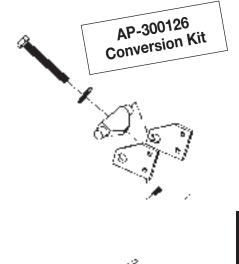
			, , , , , , , , , , , , , , , , , , ,	20.00
Part #	Qty Req	Description	Weight	, eg
AP-300125	Depth a	djustment conversion kit for ADUs	8.8	(e)
	manufa	ctured before 1997		70
Kit consists of:				$\mathbb{P}$
AP-300123	1	Heel bracket weldment		\
		(aux spring requires AP-300124*)		- \ :
AP-500481	2	Bolt, HHCS 7/16" x 3-1/2"		/,
AP-500583	2	7/16" top lock nut		
AP-510765	2	Adjuster spring .6 x 2.5"		
AP-510766	2	Adjuster split ring		
AP-505031	1	Bar, height adjuster		
AP-300122L	1	Weld, ADU press wheel adjuster		
AP-500495	1	Bolt, HHCS 1/2" x 3.5" G5 zinc	AD-300125	
AP-500584	1	Nut, top lock, 1/2"	AP-300125 replaces these pa	arts
AP-501559	1	Adjuster pin spacer tube	replaces the	

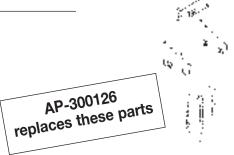


## AP-300126 - Spring Conversion Kit for ADUs with 2 Down Pressure Springs

Part #	Qty Req	Description	Weight
AP-300126	Spring co	onversion kit for ADUs with	7.9
	2 down	oressure springs	
Kit consists of:			
AP-300196	1	Spring	
AP-300011	1	Bushing, large spring mount	
AP-300039	1	Spring anchor bar	
AP-300055	1	Spring nut 1.8 ID. painted	
AP-300056	2	Plate, spring anchor	
AP-500512	1	5/8" x 4-1/2" all thread HHCS	
AP-500621	1	5/8" diameter SAE washer	
AP-510679	4	Bolt, carriage 7/16" x 1.25"	
AP-500484	1	Bolt, HHCS 7/16" x 5-1/2"	
AP-500583	5	Nut, top lock 7/16" NC	

Adjuster pull pin with hairpin clip





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