

## Quality Agricultural Equipment

Manufacturers of:<br>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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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 AcraPlant 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 Grop 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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## 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 $1 / 2^{\prime \prime}$ 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 $1 / 2^{\prime \prime}$ of edge wear on the item(s). Any warranty on tillage items expires after $1 / 2^{\prime \prime}$ of edge wear has occurred. The pro-rating system and $1 / 2^{\prime \prime}$ 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. AcraPlant 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. 


#### Abstract

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-Phoenixim 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 ${ }^{\circledR}$ and Acra-Place ${ }^{\circledR}$ 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 $2-5 / 8^{\prime \prime}$ 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.

- Discs are 4 mm 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, axial thrust \& overturning moments to a much greater extent than the cheaper twin-race ball bearings.
5. The alloy casting V-slice opener that actually produces the uniform seed trench is made of $25 \%$ chrome for longer life and durability.

For specific model retrofit discs:
John Deere.......................................................Page 23

Kinze
.Page 24
White
.Page 25
CaselH.
.Page 26

# Acra-Phoenix/Acra-Place Systems John Deere, Kinze, White a 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 \# | Descr |
| :--- | :--- |
| AP-249749 | Face <br> (JD, <br>  <br> AP-249740 |
| Note: Universal Rigid | Mount ava |


| Kit \# | Description | Weight |
| :--- | :--- | :--- |
| AP-JDFZMA | Face Mount Zone Manager <br> (JD, Kinze \& White) | 82.00 |
| AP-CAFZMA | CaselH Mount Zone Manager (CaselH) | 82.00 |

## Kit consists of:



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

## Zone Manager \& Acra-Place

| Kit \# | Description |
| :--- | :--- |
| AP-JDFZMAPR |  <br> Acra-Place RH (JD, Kinze \& White) |
| AP-JDFZMAPL | Face Mount Zone Manager \& Acra-Place LH |
| AP-CAFZMPR | CaselH Mount Zone Manager \& Acra-Place RH <br> (CaselH) |
| AP-CAFZMPL | CaselH Mount Zone Manager \& Acra-Place LH |
| Kit consists of: |  |
| AP-249749 | 1 |
| AP-249740 | Face Mount Pin-Adjust System or |
| AP-244206 | CaselH Mount Pin-Adjust System |
| AP-241214L | 1 |$\quad$ Universal attachment bracket

AP-692001 1 Acra-Place, LH
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.


Trash Whipper

| Part \# | Description | Weight |  |
| :--- | :--- | :--- | ---: |
| AP-JDFTWA | Face Mount Trash Whipper <br> (JD, Kinze, White) | 52.0 |  |
| AP-CAFTWA | CaselH Mount Trash Whipper (CaselH) | 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 | $13^{\prime \prime}$ 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 <br> AP-JDFTWAPR |
| :--- | :--- |
| AP-JDFTWAPL | Face Mount Trash Whipper \& Acra-Place RH <br> (JD, Kinze, White) |
| AP-CAFTWAPR Mount Trash Whipper \& Acra-Place LH |  |
| (JD, White, Kinze) |  |

*CaselH planters use 2 of AP-201012.
Note: Universal Rigid Mount available, consult with factory for ordering information.

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

| Part \# | Qty Req | Description |
| :---: | :---: | :---: |
| AP-249751 | 1 | Pin-Adjust Face Mount Weld (1) |
| AP-249750 | 1 | Pin-adjust stem 2 |
| AP-500552 | 1 | L pin $1 / 2^{\prime \prime} \times 3^{\prime \prime}$ with hairpin cotter 0 |
| AP-500493 | 2 | Bolt, HHCS, $1 / 2^{\prime \prime} \times 3^{\prime \prime}$ G5/zinc ( 0 |
| AP-500600 | 2 | Nut, hex rev lock, 1/2" zinc © |
| AP-500428 | 4 | Bolt, carriage, $1 / 2^{\prime \prime} \times 1-1 / 2^{\prime \prime}$, G5 zinc 0 |
| LW4 | 4 | Washer, split lock, $1 / 2^{\prime \prime}$ plated (0) |
| 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 (1) |
| AP-249704 | 1 | Internal stem weldment (2) |
| AP-249706 | 1 | Face mount plate © |
| AP-249707 | 1 | Nut locking assembly 0 |
| AP-500427 | 4 | Bolt, carriage, $1 / 2^{\prime \prime} \times 1-3 / 4^{\prime \prime}$ ( 0 |
| AP-500497 | 2 | Bolt, HHCS, $1 / 2^{\prime \prime} \times 4^{\prime \prime}$ © |
| AP-500661 | 1 | Spring pin, $1 / 4^{\prime \prime} \times 1^{\prime \prime} 0$ |
| AP-500690 | 1 | Grease fitting, threaded, $1 / 4^{\prime \prime}-28$ O |
| AP-510774 | 1 | Vari-Just adjusting screw © |
| AP-510776 | 1 | Locking nut (1) |
| LW4 | 6 | Washer, split lock, 1/2" (not shown) |
| N4 | 6 | Nut, hex, 1/2", plated © |
| SHIM | 2 | Shim, $1^{\prime \prime} \mathrm{OD} \times 5 / 8^{\prime} 1 \mathrm{D} \times 1 / 16^{\prime \prime}$ thick (3) |




## 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 © |
| AP-500552 | 1 | Pin $1 / 2^{\prime \prime} \times 3^{\prime \prime}$ w/hairpin cotter © |
| AP-500493 | 2 | Bolt, HHCS, $1 / 2^{\prime \prime} \times 3^{\prime \prime}$ G5/zinc © |
| AP-500600 | 2 | Nut, hex rev lock, 1/2" zinc © |

Early $\mathrm{IH}-800$ requires addition of AP-249733 mounting adapter


## AP-249710 - Optional CaselH Mount Vari-Just System $\mathbf{2}^{-2}$

| Part \# | Qty Req | Description |
| :---: | :---: | :---: |
| AP-249701 | 1 | Vari-Just external stem © |
| AP-249704 | 1 | Vari-Just internal stem weldment (2) |
| AP-249707 | 1 | Vari-Just nut locking assembly 0 |
| AP-500497 | 2 | Bolt, HHCS, $1 / 2^{\prime \prime} \times 4^{\prime \prime}$ © |
| AP-500661 | 1 | Spring pin, $1 / 4^{\prime \prime} \times 1^{\prime \prime} \boldsymbol{0}$ |
| AP-500690 | 1 | Grease fitting, threaded, 1/4"-28 © |
| AP-510774 | 1 | Vari-Just adjusting screw © |
| AP-510776 | 1 | Vari-Just nut locking nut © |
| LW4 | 2 | Washer, split lock, 1/2" (not shown) |
| N4 | 2 | Nut, hex, 1/2", plated © |
| SHIM | 2 | Shim, 1"OD x 5/8'1D $\times 1 / 16^{\prime \prime}$ thick (1) |



## Zone Manager ${ }^{\text {rTM }}$ Assembly

| Part\# | Qty Req | Description |
| :--- | :---: | :--- |
| AP-241214R | 1 | Zone wheel assembly, RH © |
| AP-241214L | 1 | Zone wheel assembly, LH © |
| AP-500401 | 2 | Bolt, carriage, $5 / 16^{\prime \prime}-18$ NC $\times .75^{\prime \prime}$ G5 © |
| AP-500582 | 2 | Nut, top lock, $5 / 16^{\prime \prime}$ NC © |
| AP-500619 | 2 | Washer, flat 5/16" (not shown) |
| AP-500633 | 1 | Washer, internal tooth, 5/8" © |
| AP-501618 | 1 | Zone Manager scraper blade, RH © |
| AP-501619 | 1 | Zone Manager scraper blade, LH © |
| AP-501620 | 1 | Zone Manager scraper mount weldment, RH © |
| AP-501621 | 1 | Zone Manager scraper mount weldment, LH © |
| 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 © © |




1


| Part\# | Qty Req | Description |
| :---: | :---: | :---: |
| AP-241206 | 1 | Zone wheel tine mounting plate, RH © |
| AP-241207 | 1 | Zone wheel tine mounting plate, LH $\mathbf{L}$ |
| AP-241208 | 1 | Zone wheel inner cover plate © |
| AP-241209 | 1 | Zone wheel outer cover plate © |
| AP-241218 | 14 | Zone wheel finger, RH © |
| AP-241217 | 14 | Zone wheel finger, LH © |
| AP-241263 | 1 | Bearing stud, zone wheel, $3 / 4^{\prime \prime}$ © |
| AP-299050 | 2 | Bearing flange gasket © |
| AP-299051 | 1 | Bearing ring, 2"OD x .12"x $\times 121^{\prime \prime}$ thick 0 |
| AP-299054 | 2 | Bearing, $3 / 4^{\prime \prime}$ trash whipper (1) |
| AP-299143 | 1 | Bearing flange inner, open end, flat © |
| AP-299164 | 1 | Bearing flange outer, closed end, flat (1) |
| AP-500582 | 3 | Nut, top lock, 5/16" NC © |
| AP-500631 | 28 | Washer, internal tooth, 3/8" ${ }^{\text {(1) }}$ |
| AP-500633 | 1 | Washer, internal tooth, $5 / 8^{\prime \prime}$ (1) |
| AP-510695 | 28 | Bolt, HHCS, $3 / 8^{\prime \prime} \times 1^{\prime \prime}$ NF (1) |
| AP-510696 | 6 | Bolt, carriage, 5/16"-18NC x $2^{\prime \prime}$ G5 zinc (1) |
| AP-510697 | 3 | Bolt, serrated flange, $5 / 16^{\prime \prime} 18 \mathrm{NC} \times 1 / 2^{\prime \prime}$ (10 |
| AP-510698 | 3 | Nut, coupling $5 / 16^{\prime \prime} 18 \mathrm{NC} \times 1-1 / 8^{\prime \prime}$ zinc (1) |
| AP-510700 | 1 | Zone wheel dust cover $2.33^{\prime \prime} \mathrm{OD} \times 3 / 4^{\prime \prime} \mathrm{D} \times 1 / 16^{\prime \prime}$ (1) |
| AP-510701 | 6 | Zone wheel spacer, . $34311 \mathrm{D} \times .625{ }^{\prime \prime} \mathrm{OD} \times .92^{\prime \prime}$ (1) |
| AP510702 | 1 | Zone wheel spacer . $7811 \mathrm{D} \times 1.25$ "OD $\times .205^{\prime \prime}$ (3) |
| AP-510703 | 1 | Zone wheel spacer, 7501D $\times 1.312^{\prime \prime} \mathrm{OD} \mathrm{X} \mathrm{.562"} \mathrm{(3)}$ |
| AP-510704 | 1 | Zone Wheel spacer, . $761 \mathrm{D} \times 1.25^{\prime \prime} \mathrm{OD} \times .1^{\prime \prime}$ (2) |
| AP-510745 | 1 | Nut, hex, jam, 5/8"-18NF G8 (2) |
| AP-510784 | 1 | Zone wheel rubber seal, $1.25^{\prime \prime} \times 1.5^{\prime \prime} \times 1 / 8^{\prime \prime}$ (10) |

# Trash Whipper ${ }^{\otimes}$ a Mount 

| Part\# | Qty Req | Description |
| :--- | :---: | :--- |
| AP-201012 | 1 | $12^{\prime \prime}$ Trash Whipper disc assembly © |
| AP-201013 | 1 | $13^{\prime \prime}$ Trash Whipper disc assembly © |
| AP-500497 | 4 | Bolt, HHCS, $1 / 2^{\prime \prime} \times 4^{\prime \prime}$ © |
| AP-501646 | 1 | Phoenix bracket weldment © |
| AP-501696 | 1 | Trash Whipper mounting bracket, RH © |
| AP-501697 | 1 | Trash Whipper mounting bracket, LH © |
| AP-500633 | 1 | Washer, internal tooth 5/8" © |
| AP-510745 | 1 | Nut, hex jam $5 / 8^{\prime \prime}-18 N F$ G8 © |
| AP-500584 | 4 | Nut, top lock, $1 / 2^{\prime 2} N C$ © |

## AP-201012 12 Trash Whipper Blade

 AP-201013 13" Trash Whipper Blade

| Part \# | Qty Req | Description |
| :--- | :---: | :--- |
| AP-201112 | 1 | 12" notched blade only © |
| AP-201113 | 1 | 13" notched blade only © |
| AP-299043 | 1 | TV disc bearing flange open © |
| AP-299050 | 2 | Gasket © |
| AP-299051 | 1 | Retainer ring © |
| AP-299054 | 2 | Bearing Trash Whipper © |
| AP-299063 | 1 | Stud bolt 3/4" double © |
| AP-299064 | 1 | TV disc bearing flange closed © |
| AP-500401 | 6 | $5 / 16^{\prime \prime} \times 3 / 4^{\prime \prime}$ carriage bolt © |
| AP-500582 | 6 | $5 / 16^{\prime}$ NC serrated flange nut © |
| AP-500606 | 1 | 5/8'NF nylon insert lock nut © |
| AP-500633 | 1 | 5/8" diameter internal star washer © |

## Acra-Phoenix Replacement Parts



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

(Right-Hand Depicted)

Part \#
Qty Req Description $\qquad$ Retail \$


## Stand Alone Acra-Place ${ }^{\circledR}$ 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 $12^{\prime \prime}$ 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: 

AP-249749 Pin-Adjust Stem/bracket (JD, White, Kinze) Page 11
AP-249740 Pin-Adjust Stem/bracket (CaselH) Page 11
AP-249700 Vari-Just Stem/bracket (JD, White, Kinze) ........Page 13
AP-249710 Vari-Just Stem/bracket (CaselH). .Page 14
Part \# Description

| AP-692004 | $1-1 / 2^{\prime \prime}$ stand alone Acra-Place, left-hand |
| :--- | :--- |
| AP-692005 | $1-1 / 2^{\prime \prime}$ stand alone Acra-Place, right-hand |

## Acra-Place $1-1 / \mathbf{2}^{2}$ 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 $1-1 / 2^{\prime \prime}$ systems


AP-692002-2" Stand Alone Acra-Place ${ }^{\circledR}$ Left Hand AP-692003 - $\mathbf{2}^{\text {C }}$ Stand Alone Acra-Place ${ }^{\oplus}$ Right Hand AP-692004-1-1/2 Stand Alone Acra-Place ${ }^{\oplus}$ Left Hand AP-692005-1-1/2 Stand Alone Acra-Place ${ }^{\circledR}$ Right Hand

| Part \# | Qty Req | Description |
| :---: | :---: | :---: |
| AP-510745 | 1 | Nut, hex jam, G8, 5/8" NF © |
| AP-500633 | 1 | Washer, internal tooth, 5/8' 2 |
| AP-501679 | 2 | Mount bolt, carriage, $1 / 2^{\prime \prime} \times 1-1 / 2^{\prime \prime}$ © |
| AP-501745 | 1 | Bar adjust © |
| AP-510636 | 1 | Bolt, carriage, $5 / 16^{\prime \prime} \times 1.75^{\prime \prime}$ © |
| AP-510693 | 1 | Spring pin, $5 / 16^{\prime \prime} \times 1.0^{\prime \prime} 0$ |
| AP-510825 | 1 | Acra-Place insert bumper (0) |
| AP-692007 | 1 | Acra-Place insert mount, LH © |
| AP-692008 | 1 | Acra-Place insert mount, RH O |
| AP-692011 | 1 | Disc assembly, $122^{\prime \prime} \times 9$ notch Acra-Place (1) |
| AP-692015 | 1 | Acra-Place delivery tube, LH (1) |
| AP-692016 | 1 | Acra-Place delivery tube, RH (3) |
| AP-692019 | 1 | Acra-Place mount 2", LH © ${ }^{\text {( }}$ |
| AP-692020 | 1 | Acra-Place mount 2", RH (1) |
| AP-692021 | 1 | Acra-Place mount 1-1/2", LH © |
| AP-692022 | 1 | Acra-Place mount 1-1/2", RH © |
| AP-692023 | 1 | Acra-Place bearing deflector, LH (1) |
| AP-692024 | 1 | Acra-Place bearing deflector, RH (1) |
| AP-API4L | 1 | '97 Acra-Place insert, LH © |
| AP-API4R | 2 | '97 Acra-Place insert, RH (1) |
| LN2 | 1 | Nut, nylon lock, 5/16" (1) |
| N4 | 3 | Nut, hex, 1/2" plated (3) |
| LW4 | 3 | Washer, split lock 1/2" (3) |
| SHIM | 3 | Shim, $1^{\prime \prime}$ OD $\times 5 / 8^{\prime} 1 \mathrm{D} \times 1 / 16^{\prime \prime}$ thick (2) |

Part \# Qty Req Description
$\left.\begin{array}{lll}\hline \text { AP-299050 } & 1 & \text { Bearing flange gasket © } \\ \hline \text { AP-299051 } & 1 & \text { Bearing ring, 2"OD } \times .12^{\prime \prime} \times .121^{\prime \prime} \text { thick © } \\ \hline \text { AP-299054 } & 2 & \text { Bearing, 3/4" © } \\ \hline \text { AP-299063 } & 1 & \text { Bearing stud, 3/4" © } \\ \hline \text { AP-299164 } & 1 & \text { Bearing flange, outer, closed end © } \\ \hline \text { AP-500582 } & 6 & \text { Nut, top lock } 5 / 16^{\prime \prime} \text { NC © }\end{array}\right]$


## Disclaimer:

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

This page intentionally

## 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 ${ }^{\text {ma }}$ Replacement Parts for assembly break down. |  |  |

Note: See Acra-Phoenix ${ }^{T M}$ Replacement Parts for assembly break down.


## Residue Manager (Double Disc) <br> 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 |  |
| AP-201012 | 12" notched disc double bearing | 9.00 |
| AP-201013 | 13" notched disc double bearing | 6.25 |

*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 |

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

## Notched Retrofit Diisc (Heavy Duty, Self Cleaning)

| Part \# | Description | Weight |
| :--- | :--- | ---: |
| AP-001711 | $15^{\prime \prime} 11-$ notch disc | 7.50 |
| AP-001715 | $15^{\prime \prime} 15-$ 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.


## 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" $^{\prime \prime}$ disc mount bracket* (standard) | 8.00 |
| AP-242006 | 2" $^{\prime \prime}$ extended disc mount bracket | (option) |
| AP-201012 | 12" notched disc double bearing | 9.00 |
| AP-201013 | 13" notched disc double bearing | 6.25 |

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



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

| Part \# | Description | Weight |
| :--- | :--- | :---: |
| AP-001711 | $15^{\prime \prime} 11$-notch disc | 7.50 |
| AP-001715 | $15^{\prime \prime} 15-$ 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 | $13^{\prime \prime}$ 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)

| Part \# | Description | Weight |
| :--- | :--- | :--- |
| AP-249700 | Face-mount pin-adjust System | 19.00 |
| Note: See Acra-Phoenix ${ }^{\text {TM }}$ 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 | $12^{\prime \prime}$ notched disc double bearing | 6.25 |
| AP-201013 | $13^{\prime \prime}$ notched disc double bearing | 7.00 |

*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 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 $14^{\prime \prime}$ retrofit discs.

## V-Slice Insert White 6100 through 8000 Series

| Part \# | Description | Weight |
| :--- | :--- | ---: |
| AP-001685 | V-Slice insert, White | 1.88 |

## Notched Retrofit Discs white 5100 through 8000 Series

| Part \# | Description | Weight |
| :--- | :--- | :---: |
| AP-001711 | $15^{\prime \prime} 11-$ notch disc $(6100-8000)$ | 7.50 |
| AP-001715 | $15^{\prime \prime} 15-$ notch disc $(6100-8000)$ | 7.50 |
| AP-009811 | $14^{\prime \prime} 11$-notch disc $(5100 \& 5700)$ | 7.50 |
| AP-009815 | $14^{\prime \prime} 15-$ 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.



## CaselH 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 16row planters. (Units behind Trunnions.)
See Acra-Phoenix ${ }^{\text {Th }}$ Replacement Parts for assembly breakdown.
Part\# Description Weight

| AP-238052 6" ext. linkage IHC 800, 900 \& 1200 | 37.00 |
| :--- | :--- | :--- |

Residue Manager (Double Disc)
Trash Whippers

| Part \# | Description | Weight |
| :--- | :--- | ---: |
| AP-249716 | 2" $^{\prime \prime}$ disc mount bracket* (standard) | 8.00 |
| AP-242006 | 2" $^{\prime \prime}$ extended disc mount bracket* (option) | 9.00 |
| AP-201012 | $12^{\prime \prime}$ notched disc double bearing | 6.25 |
| AP-201013 | $13^{\prime \prime}$ notched disc double bearing | 7.00 |

*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 $1-1 / 2^{\prime \prime}$ stems.

## V-Slice Inserts



| Part \# | Description | Weight |
| :--- | :--- | ---: |
| AP-009840 | V-98 slicing attachment, <br> (Case 800, 900 \& 1200) See page 29 for parts | 4.67 |
| AP-410601 | IER3 V-slice insert | 1.28 |
| AP-009040 | V-9 slice attachment <br> (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 <br> (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 | Weight |
| :--- | :--- | ---: |
| AP-009811 | $14^{\prime \prime 11-n o t c h ~ d i s c ~}$ | 7.50 |
| AP-009815 | $14^{\prime \prime} 15$-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 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 13"Marker Disc"2 - 430002 Marker Bracket for IHC 900. |  |  |

Kit consists of: 2-43000 13"Marker Disc"2 - 430002 Marker Bracket for IHC 900.


Replacement Parts for the following retrofit Blade assemblies:
AP-001711 $15^{\prime} \times 11-$ Notch for JD, White \& Kinze
AP-001715 15 x 15-Notch for JD, White \& Kinze
AP-009811 14 x 11-Notch for CaselH \& White 5000 Series
AP-009815 14 x 15-Notch for CaselH \& White 5000 Series

| Part\# | Qty Req | Description |
| :---: | :---: | :---: |
| AP-502001 | 1 | $15^{\prime \prime} \times 11$ notch disc JD, Kinze, White 0 |
| AP-502004 | 1 | $15^{\prime \prime} \times 15$ notch disc JD, Kinze, White (2) |
| AP-500240 | 1 | $14^{\prime \prime} \times 11$ notch disc CaselH \& White 5000 Series 0 |
| AP-500241 | 1 | $14^{\prime \prime} \times 15$ notch disc CaselH \& White 5000 Series © |
| AP-001744 | 1 | Plastic hub cap © |
| AP-299050 | 1 | Gasket © |
| AP-500448 | 6 | $5 / 16^{\prime \prime} \times 5 / 8 "$ button head cap screw 0 |
| AP-500582 | 6 | $5 / 16$ 'NC top lock nut © |
| AP-299143 | 1 | Bearing, flange inner (open end) flat $\mathbf{0}$ |
| AP-299051 | 1 | Bearing ring 2"OD $\times .12^{\prime \prime} \times .12^{\prime \prime}$ (1) |
| AP-502002 | 1 | Bearing, 5/8" ${ }^{\text {(1) }}$ |
| SHIM | 2 | 5/8" diameter 18ga shim (not shown) |

## Planter Enhancements - Replacement Parts



## AP-034550 - V-Slice Opener



White 5100 \& 5700

| Part \# | Qty Req | Description |
| :---: | :---: | :---: |
| AP-410602 | 1 | V-51 slicing insert with pins (1) |
| AP-034558 | 1 | Weld, body 2 |
| AP-500409 | 2 | $3 / 8^{\prime}$ NC $\times 1-1 / 2$ "carriage bolt 3 |
| LN3 | 2 | $3 / 8^{\prime}$ NC nylock lock nut (4) |
| SP1 | 2 | 1/4" $\times 3 / 4^{\prime \prime}$ MTB pin $\mathbf{0}$ |
| AP-501212 | 1 | Body spacer © |
| AP-501213 | 2 | Adjusting wedge 1 |

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 © |
| $A P-500668$ | 3 | Chain, 5 link © |
| $A P-510672$ | 1 | Spring pin, $3 / 16^{\prime \prime} \times 1-3 / 8^{\prime \prime}$ © |
| $A P-500649$ | 1 | Spirol pin, $1 / 4^{\prime \prime} \times 1-3 / 8^{\prime \prime}$ © |
| AP-715523 | 1 | Seed tube (not shown) |

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## Case 400/500 Offset Disc

| Part \# | Qty Req | Description |
| :---: | :---: | :---: |
| AP-410100 | 1 | Slicing stub with hardware (1) |
| AP-009042 | 1 | Replacement scraper 009040 (2) |
| AP-009043 | 1 | Adapter 009040 © |
| AP-009068 | 1 | Weld, V-9 body 0 |
| AP-500411 | 1 | 3/8'NC $\times 2$ " carriage bolt |
| AP-500455 | 1 | $5 / 16^{\prime} \mathrm{NC} \times 1$ 1" HHCS |
| AP-500541 | 1 | $3 / 8^{\prime \prime} \times 2^{\prime \prime}$ hook bolt |
| AP-500574 | 1 | 5/16'NC full finish hex nut |
| AP-500581 | 1 | 3/8'NC top lock nut |
| AP-500590 | 2 | 3/8'NC top lock jam nut |
| AP-500612 | 1 | 1/4" diameter flat washer |
| AP-500638 | 1 | 5/8" diameter 14 ga NR machine bushing |
| AP-510672 | 1 | $3 / 16^{\prime \prime} \times 1-3 / 8^{\prime \prime}$ spring pin |
| AP-500668 | 3 | Chain, 5 links long © |

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## 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 | $7 / 16^{\prime \prime} \times 4-1 / 2^{\prime \prime}$ special pin |
| AP-009152 | 1 | Replacement scraper 009150 © |
| AP-009153 | 1 | Adapter 009150 © |
| AP-009168 | 1 | Weld, body V-91 © |
| AP-500408 | 3 | $3 / 8^{\prime \prime} \times 1^{\prime \prime}$ carriage bolt |
| AP-500450 | 1 | 1/4'NC $\times 1 / 2$ 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 | $5 / 8^{\prime \prime}$ diameter 14ga NR machine bushing |
| AP-510672 | 1 | $3 / 16^{\prime \prime} \times 1$ 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 $\boldsymbol{\text { © }}$ |
| AP-410100 | 1 | Slicing stub with j bolt © |
| AP-104008 | 1 | Stainless steel body $\mathbf{~}$ |
| AP-500541 | 1 | $3 / 8^{\prime \prime} \times 2^{\prime \prime}$ hook bolt |
| AP-500547 | 1 | $3 / 8^{\prime \prime} \times 2-1 / 4^{\prime \prime}$ square head bolt |
| AP-500581 | 2 | 3/8'NC top lock nut |
| AP-440000 | 1 | Dirt guard for 100040 $\mathbf{~ © ~}$ |

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 |
| :--- | :---: | :--- |
| $A P-954141$ | 1 | $7 C$ slicing edge with hardware © |
| $A P-500523$ | 2 | $7 / 16^{\prime \prime} \times 1-3 / 4^{\prime \prime} N C$ serrated flange bolt |
| $A P-500541$ | 1 | $3 / 8^{\prime \prime} \times 2^{\prime \prime}$ hook bolt $F$. body |
| $A P-500581$ | 1 | $3 / 8^{\prime} N C$ top lock nut |
| $A P-500583$ | 2 | $7 / 16^{\prime}$ NC top lock nut |
| $A P-959606$ | 1 | Lister body only $\mathbf{~} 2$ |

Note: Most older planters will require adapter for first-time installation. Consult factory for availability.
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## Non-Gurrent Planter/Fertilizer Replacement Parts


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

NOT CURRENT, But all parts serviced. AP-699114 wheel available smooth or

| Part \# | Qty Req | Description |
| :--- | :---: | :--- |
| AP-299143 | 1 | TW disc bearing flange open © |
| AP-299050 | 2 | Gasket © |
| AP-299054 | 2 | Bearing nutri-till © |
| AP-299164 | 1 | TW disc bearing flange closed © |
| AP-500402 | 6 | $5 / 16^{\prime \prime} \times$ 1 $^{\prime \prime}$ carriage Gr. 5 (not shown) |
| AP-500523 | 2 | $7 / 16^{\prime \prime} \times 1$ 1-3/4'NC serrated flange bolt (not shown) |
| AP-500582 | 6 | $5 / 16^{\prime}$ 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 © |
| 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 © |
| AP-698065 | 1 | Bearing spacer © |
| AP-699114 | 1 | 9" notched sub assembly © |
| AP-699016 | 1 | NT stem VJNP 2 hole © |

AP-691200 - 12 Fertilizer System


## AP-243006 - Ridge Manager

| Part \# | Qty Req | Description |
| :--- | :---: | :--- |
| $A P-500490$ | 2 | $1 / 2^{\prime \prime} \times$ 2'NC HHCS © $^{\prime 2}$ |
| $A P-500584$ | 2 | $1 / 2^{\prime N}$ C top lock nut © |
| $A P-501368$ | 1 | Weld, ridge till TW © |
| $A P-501369$ | 1 | Plate, arm ridge till TW © |




## AP-241095 - Acra Sweep

| Part \# | Qty Req | Description |
| :--- | :---: | :--- |
| AP-241090 | 1 | 15" Acra Sweep lower plates © |
| 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 © |
| AP-691008 | 1 | Stem, disc mount LH © |
| AP-500448 | 12 | $5 / 16^{\prime \prime} \times 5 / 8^{\prime \prime}$ button head cap screw (not shown) |
| AP-500489 | 2 | $1 / 2^{\prime \prime} \times 3 / 4^{\prime \prime} \mathrm{NC} \mathrm{HHCS} 2$ |
| AP-500501 | 1 | $5 / 8^{\prime \prime} \times 1-1 / 2^{\prime} \mathrm{NC}$ RH HHCS 0 |
| N1 | 1 | $1 / 4^{\prime} \mathrm{NC}$ square nut $\mathbf{0}$ |
| AP-500582 | 12 | 5/16" NC top lock nut © |
| N4 | 2 | 1/2'NC full finish hex nut © |
| AP-500620 | 1 | 1/2" diameter flat washer © |
| LW4 | 2 | $1 / 2^{\prime \prime}$ diameter lock washer 0 |
| Shim | 16 | $5 / 8^{\prime \prime} \times 1-1 / 4^{\prime \prime} 15$ ga machine bushing 0 |
| AP-500655 | 2 | $5 / 16^{\prime \prime} \times 3 / 4^{\prime \prime}$ spirol pin (not shown) |
| AP-501026 | 1 | $1 / 2^{\prime \prime} \times 7^{\prime \prime}$ HHCS (1) |
| AP-691015 | 2 | 10-1/2" AP disc less stem |
| AP-691042 | 1 | Acra Place insert 1992 (1) |
| AP-691030 | 2 | Acra Place bearing assembly (1) |
| AP-691036 | 1 | Weld, fertilizer tube (3) |
| AP-510560 | 1 | $1 / 4^{\prime \prime} \times 2-1 / 2^{\prime \prime}$ HHCS (1) |
| AP-510563 | 1 | 5/8" $\times 1-5 / 8^{\prime} \mathrm{NC}$ LH HHCS © |
| AP-691009 | 2 | 10-1/2" 9-notch disc, painted (1) |
| AP-691044 | 2 | Hub cap aluminum ( ${ }^{\text {a }}$ |

## 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 huild 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 4 mm 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" $\times 3$ 3" bar with 4" v-groove press wheel | 98.00 |
| AP-ADU3X3P | ADU for 3" $\times$ 3" bar with 2" peaked press wheel | 98.00 |
| AP-ADUEX3X3VG | ADU extended mount $3^{\prime \prime} \times 3^{\prime \prime}$ with $4^{\prime \prime} \mathrm{v}$-groove press wheel | 102.00 |
| AP-ADUEX3XBP | ADU extended mount 3"x $3^{\prime \prime}$ 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" $\times 4^{\prime \prime}$ bar with $4^{\prime \prime} \mathrm{v}$-groove press wheel | 112.00 |
| AP-ADU4X4P | ADU 4" $\times 4$ " bar 2" peaked press wheel | 112.00 |
| AP-ADU4SLVG | ADU 4" $\times 4$ " swivel with 4 " $v$-grove press wheel | 119.00 |
| AP-ADU4SLP | ADU 4" 4 4" swivel with 2" peaked press wheel | 119.00 |

## Acra-Drill Unit

(Parts listed on facing page)


ACra-Drill Unit (llustration on facing page)

| Part \# | Qty Req | Description |
| :---: | :---: | :---: |
| AP-299041 | 2 | Dust cover 1 |
| 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 $\boldsymbol{0}$ |
| AP-300112 | 2 | Bar, upper link arm (standard) 0 |
| AP-300121 | 1 | Weld, lower link arm 0 |
| AP-300122L | 1 | Weld, ADU press wheel adjuster (1) |
| AP-300123 | 1 | Weld, ADU heel bracket '97 (1) |
| AP-300196 | 1 | Spring (1) |
| AP-300413 | 1 | Weld, double axle arm (3) |
| AP-300527 | 4 | Hinge bushing (1) |
| AP-300537 | 4 | Bushing 1" OD. $\times 3 / 4^{\prime} 1 \mathrm{D}$ © |
| AP-301111 | 1 | ADU disc 11-notch (right hand, shown) © |
| AP-301115 | 1 | ADU disc 15-notch (left hand, not shown) (1) |
| AP-301112 | 1 | Seed tube with protector ${ }^{\text {(B) }}$ |
| AP-301155 | 2 | Bearing, 5/8" bore ${ }^{\text {(1) }}$ |
| AP-302132 | 1 | ADU center body with clips (10 |
| AP-331100 | 1 | Insert JDI3 with bolts and nuts (4) |
| AP-500506 | 1 | 5/8" $\times 2-1 / 2^{\prime \prime}$ LH HHCS (left hand, not shown) (22) |
| AP-500510 | 1 | $5 / 8^{\prime \prime} \times 2-1 / 2^{\prime \prime} \mathrm{RH}$ HHCS (right hand, shown) |
| AP-500512 | 1 | $5 / 8^{\prime \prime} \times 4-1 / 2^{\prime \prime}$ all thread HHCS 2 |
| AP-500621 | 1 | 5/8" diameter SAE washer ${ }^{(37}$ |
| AP-501540 | 2 | Spacer ${ }^{218}$ |
| AP-505031 | 1 | Bar, height adjuster (4) |
| AP-500506 | 1 | HHCS left-hand 5/8" $\times 2.5^{\prime \prime}$ (not shown) |
| AP-500451 | 1 | Bolt carriage, 1/4" $\times 0.75^{\prime \prime}$ ( (not shown) |
| LN1 | 1 | Nut, nylon lock, . 0250 1/4" (not shown) |
| AP-698051 | 2 | Spacer ring ${ }^{23}$ |
| AP-500448 | 12 | Cap screw, button head $5 / 16^{\prime \prime} \times 3 / 4^{\prime \prime}$ (2) |
| AP-500484 | 1 | Bolt, HHCS 7/16" $\times 5-1 / 2^{\prime \prime}$ |
| AP-500582 | 12 | Nut, top lock, 5/16" NC ${ }^{\text {(10 }}$ |
| AP-500584 | 5 | Nut, top lock 1/2" |
| AP-500499 | 4 | 1/2" $\times 5-1 / 2^{\prime \prime}$ NC HHCS (not shown) |
| AP-510679 | 4 | Bolt, carriage $7 / 16^{\prime \prime} \times 1.25^{\prime \prime}$ |
| AP-500583 | 8 | Nut, top lock 7/16" NC ${ }^{\text {(20 }}$ |
| AP-500481 | 3 | Bolt HHCS 7/16" $\times 3.5^{\prime \prime}$ G5 zinc (not shown) |
| AP-501559 | 1 | Adjuster pin spacer tube (not shown) |
| AP-510764 | 2 | Pull pin (not shown) |
| AP-510765 | 2 | Cam Adjuster spring .6" $\times 2.5^{\prime \prime}$ (not shown) |
| AP-510766 | 2 | Cam Adjuster split ring (not shown) |
| AP-500495 | 1 | 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" $\times$ 6-1/2" NCHHCS 3 |
| LN5 | 1 | Nut, nylon lock 5/8" 31 |
| Shim | 14 | Shim $1^{\prime \prime} \times 5 / 8^{\prime \prime} \times 1 / 16^{\prime \prime}$ (not shown) |

## Acra-Drill Unit Replacement Parts

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 40 mm .
3. Metal or Plastic Wheel.

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


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



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

| Part \# | Qty Req | Description | Weight |
| :--- | :---: | :--- | :---: |
| AP-300126 | Spring conversion kit for ADUs with <br> 2 down pressure springs | 7.9 |  |
| 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" $\times 4-1 / 2^{\prime \prime}$ all thread HHCS |  |
| AP-500621 | 1 | 5/8" diameter SAE washer |  |
| AP-510679 | 4 | Bolt, carriage 7/16" $\times 1.25^{\prime \prime}$ |  |
| AP-500484 | 1 | Bolt, HHCS 7/16" $\times 5-1 / 2^{\prime \prime}$ |  |
| AP-500583 | 5 | Nut, top lock $7 / 16^{\prime \prime}$ NC |  |



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[^0]:    Note: for best results in Min-Till or No-Till conditions, use with AP-009811 and AP-009815. See page 26.

