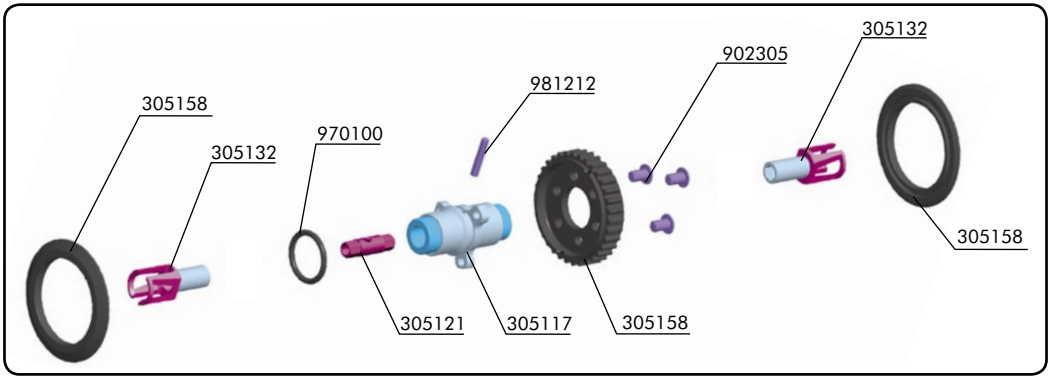
# XRAY MULTI-DIFF™

## #305105



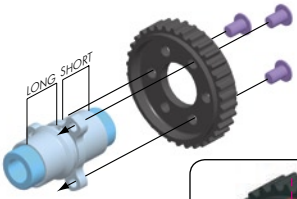

| | | | |
|---|---|---|---|
| 30 5117 | MULTI-DIFF™ MAIN AXLE T3'11 | 90 2305 | HEX SCREW SH M3x5 (10) |
| 30 5121 | MULTI-DIFF™ LOCKING AXLE | 97 0100 | O-RING 10x1.5 (10) |
| 30 5132 | INNER DRIVESHAFT ADAPTER - SPRING STEEL (2) | 98 1212 | PIN 2x11.8 (10) |
| 30 5158 | TIMING BELT PULLEY 38T | | |

902305
SH M3x5



981212
P 2x12

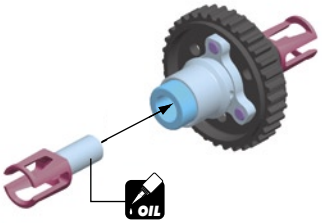
970100
O 10x1.5




NOTE ORIENTATION
Hole on the pulley and on the axle must be aligned.

Attach the #305158 pulley to the #305117 front axle using three #902305 (SH M3x5) screws.

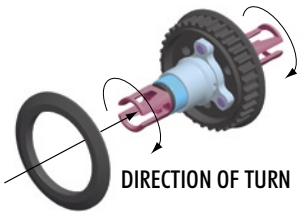
Attach pulley to SHORT side of front axle, opposite to side with hole through axle (for locking pin).




ONE-WAY LUBE
(HUDY #106231)

Apply one-way lube to outdrive shaft, then slide into one-way bearing in end of front axle.

Repeat for other side.

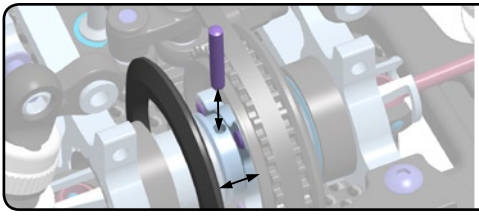


DIRECTION OF TURN

Slide two pulley covers onto the ends of the front axle. Squeeze the covers firmly until they both "snap" over the pulley; it may take a bit of effort to do this.

Verify that the outdrives rotate in the direction shown.

See other page for front Multi-Diff™ settings.

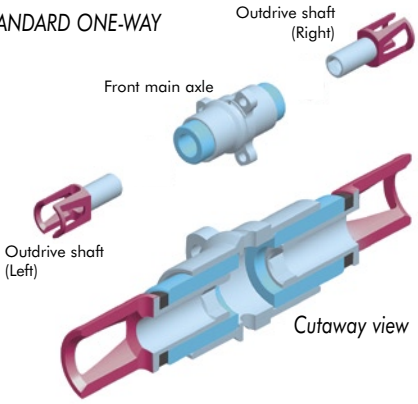


You can easily remove or insert the pin when the Multi-Diff™ is installed in the car.

1. Slide O-ring out of its groove in main axle.
2. Remove the pulley cover covering hole in main axle.
3. Remove or insert the pin; pin goes through aligned holes in main axle and internal locking axle.
4. Re-install the O-ring and pulley side cover.

# FRONT MULTI-DIFF™ SETTINGS

## STANDARD ONE-WAY




*Outdrives (left and right) are not connected to each other, nor to front main axle.*

***How to assemble:***

*Internal locking axle and locking pin are NOT installed.*

***Off-power:***

*Outdrives rotate forward independently of each other and front main axle.*

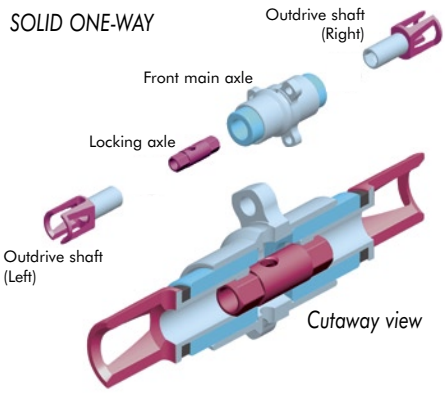
***On-power:***

*Both outdrives rotate with front main axle (locked in one-way bearings).*

***Best used when...***

*traction is high, the car leans towards off-power understeer and the track does not require braking for the corners. Will give maximum off-power steering and increase efficiency (more runtime). Best suited to a smooth driving style*

## SOLID ONE-WAY




*Both outdrives (left and right) are connected together by internal locking axle, but are not connected to front main axle.*

***How to assemble:*** *Disassemble front suspension to allow the removal of one outdrive. Insert locking axle into front main axle; hole in locking axle must go towards SHORT side of front main axle (left side). Hole in locking axle should align with hole in front main axle. Key the end of the locking axle into the end of the installed outdrive. Re-install other outdrive, and key onto the locking axle.*

***Off-power:***

*Both connected outdrives rotate forward together (but independent of front main axle).*

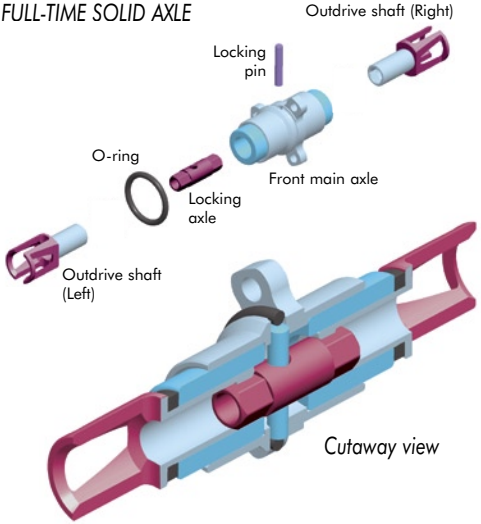
***On-power:***

*Both outdrives rotate with front main axle (locked in one-way bearings).*

***Best used when...***

*traction is medium-to-high and the track does not require braking for the corners. Gives good off-power steering and efficiency.*

## FULL-TIME SOLID AXLE




*Both outdrives (left and right) are connected to front main axle by internal locking axle and locking pin.*

***How to assemble:***

*1. Assemble axle as "solid one-way" axle described above.*
*2. Slide O-ring out of its groove in main axle.*
*3. Remove the pulley cover covering hole in main axle.*
*4. Rotate outdrives to align hole in internal locking axle with hole in front main axle.*
*5. Insert pin through aligned holes in main axle and internal locking axle.*
*6. Re-install the O-ring and pulley side cover.*

***Off-power and on-power:***

*Both outdrives rotate with front main axle.*

***Best used when...***

*traction is low-to-medium, the car leans towards off-power oversteer and/or the track requires braking for the corners. Gives less off-power steering and efficiency (less runtime). Best suited to an aggressive driving style.*