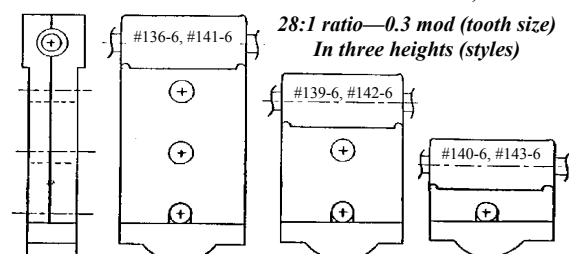


# NWSL custom quality gearbox kits

Miniature precision gearbox kits for powering small models and devices.

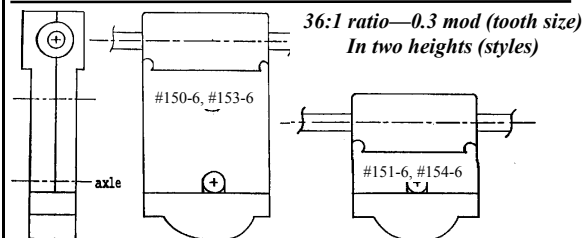
In a variety of formats, sizes, capacities for modeling from N to Large Scale

## 0.3 Module Series GEARBOX KITS for HO, etc.



- 28:1 ratio—0.3 mod (tooth size)  
In three heights (styles)**
- #136-6 28-1 Dbl Idler Gearbox kit 3.0mm axle
  - #139-6 28-1 Idler Gearbox kit 3.0mm axle
  - #140-6 28-1 Gearbox kit 3.0mm axle
  - #141-6 28-1 Double Idler Gearbox kit 1/8" axle
  - #142-6 28-1 Idler Gearbox kit 1/8" axle
  - #143-6 28-1 Gearbox kit 1/8" axle
  - #146-6 28-1 Idler Gearbox kit 3/32" (2.4mm) axle
  - #147-6 28-1 Gearbox kit 3/32" (2.4mm) axle
  - #148-6 28-1 HI-LO Artic. Gearbox Kit 3.0mm Axle
  - #149-6 28-1 HI-LO Artic. Gearbox Kit 1/8" Axle

Premium ball-bearing versions available—#1136-6, etc.



- 36:1 ratio—0.3 mod (tooth size)  
In two heights (styles)**
- #150-6 36-1 Idler Gearbox 3.0mm axle
  - #151-6 36-1 Gearbox 3.0mm axle
  - #153-6 36-1 Idler Gearbox 1/8" axle
  - #154-6 36-1 Gearbox 1/8" axle
  - #158-6 36-1 HI-LO Artic. gearbox Kit 3.0mm axle
  - #159-6 36-1 HI-LO Artic. gearbox Kit 1/8" axle

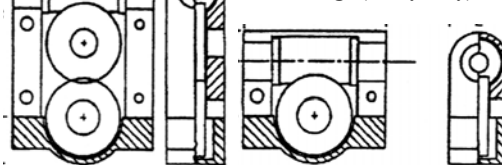
Premium ball-bearing versions available—#1136-6, etc.

- #144-6 2.0mm Right hand Wormshaft Conversion (not 1 idler)
- #145-6 1.5mm Right hand Wormshaft Conversion (not 1 idler)
- #164-6 2.0mm Lefthand Worm Shaft Conversion, single Idler
- #165-6 1.5mm Lefthand Worm Shaft Conversion, single Idler
- #166-6 1.2mm Lefthand Worm Shaft Conversion, single Idler
- #167-6 1.2mm Righthand Worm Shaft Conversion, non-Idler

### 50-1 Compound Light Duty gearbox - for HO/N3, N size lokies

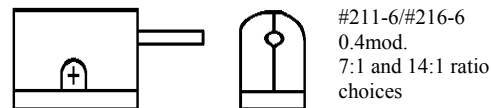
- #170-6 50-1 Compound Gearbox 2.4mm axle 1.5mm INPUT
- #171-6 50-1 Compound Gearbox 2.0mm axle 1.5mm INPUT
- #172-6 50-1 Compound Gearbox 1.5mm axle 1.5mm INPUT
- #173-6 50-1 Compound Gearbox 'N'/HO/N3 only 3.0mm axle
- #175-6 50-1 Gearbox kit Input shaft conversion kit—1.2mm

## 0.4 Module Series GEARBOX KITS for 'S', large (heavy duty) HO



- #240-6 28-1 0.4mod Idler Gearbox Kit 3.0mm Axle
- #241-6 28-1 0.4mod Gearbox Kit 3.0mm Axle
- #242-6 28-1 0.4mod Idler Gearbox Kit 1/8" Axle
- #243-6 28-1 0.4mod Gearbox Kit 1/8" Axle
- #244-6 28-1 0.4mod Idler Gearbox Kit 4.0mm or 5/32" Axle
- #245-6 28-1 0.4mod Gearbox Kit 4.0mm or 5/32" Axle
- #247-6 28-1 0.4mod HI-LO Artic Gearbox Kit 3.0mm Axle
- #248-6 28-1 0.4mod HI-LO Artic Gearbox Kit 1/8" Axle
- #249-6 28-1 0.4mod HI-LO Artic. Gearbox Kit 4mm-5/32" Axle

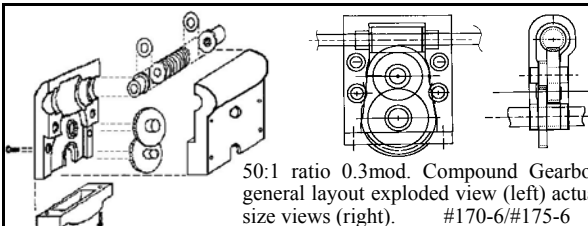
Premium ball-bearing versions available—#1240-6, etc.



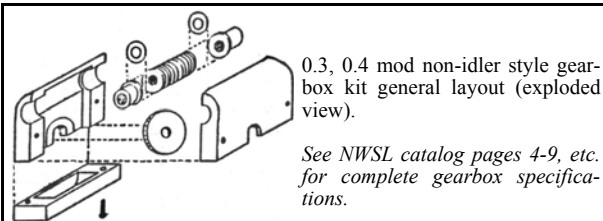
## 0.4 Module GEARBOX KITS for 'S', large HO

- #211-6 14:1 Gearbox 0.4mod 2.4mm shaft 3.0mm axle
- #212-6 14:1 Gearbox 0.4mod 2.4mm shaft 1/8" axle
- #213-6 14:1 Gearbox 0.4mod 2.4mm shaft 3/32" axle
- #214-6 7:1 Gearbox 0.4mod 2.4mm shaft 3.0mm axle
- #215-6 7:1 Gearbox 0.4mod 2.4mm shaft 1/8" axle
- #216-6 7:1 Gearbox 0.4mod 2.4mm shaft 3/32" axle

See #8060-6, etc. for geared 'O' wheelsets for above gearbox kits.



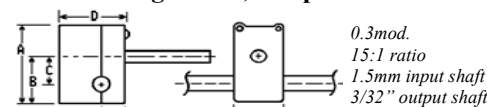
50:1 ratio 0.3mod. Compound Gearbox  
general layout exploded view (left) actual  
size views (right). #170-6/#175-6



0.3, 0.4 mod non-idler style gear-  
box kit general layout (exploded  
view).

See NWSL catalog pages 4-9, etc.  
for complete gearbox specifica-  
tions.

## Direct axle gearbox, low profile



#207-6 Auxiliary gearbox to match FLEA II (15:1) - axle gear  
and/or wheelset not included—(see #2001-6 et al for optional  
geared wheels and/or axle gear to fit #207-6)

## 0.5 Module Series GEARBOX KITS for 'O', Large scale

**Bronze Bearing** <—Version—> **Ball Bearing**

- |        |  |         |
|--------|--|---------|
| #250-6 | 25-1 Idler Gearbox 3/16" axle          | #1250-6 |
| #251-6 | 25-1 Gearbox 3/16" axle                | #1251-6 |
| #252-6 | 25-1 Idler Gearbox 1/4" axle           | #1252-6 |
| #253-6 | 25-1 Gearbox 1/4" axle                 | #1253-6 |
| #254-6 | 25-1 Idler Gearbox 5.0mm axle          | #1254-6 |
| #255-6 | 25-1 Gearbox 5.0mm axle                | #1255-6 |
| #256-6 | 25-1 Idler Gearbox 5.8mm axle          | #1256-6 |
| #257-6 | 25-1 Gearbox 5.8mm axle                | #1257-6 |
| #258-6 | 25-1 Idler Gearbox 6.0mm axle          | #1258-6 |
| #259-6 | 25-1 Gearbox 6.0mm axle                | #1259-6 |
| #260-6 | 12.5-1 Idler Gearbox 3/16" axle        | #1260-6 |
| #261-6 | 12.5-1 Gearbox 3/16" axle              | #1261-6 |
| #262-6 | 12.5-1 Idler Gearbox 1/4" axle         | #1262-6 |
| #263-6 | 12.5-1 Gearbox 1/4" axle               | #1263-6 |
| #264-6 | 12.5-1 Idler Gearbox 5.0mm axle        | #1264-6 |
| #265-6 | 12.5-1 Gearbox 5.0mm axle              | #1265-6 |
| #266-6 | 12.5-1 Idler Gearbox 5.8mm axle        | #1266-6 |
| #267-6 | 12.5-1 Gearbox 5.8mm axle              | #1267-6 |
| #268-6 | 12.5-1 Idler Gearbox 6.0mm axle        | #1268-6 |
| #269-6 | 12.5-1 Gearbox 6.0mm axle              | #1269-6 |
| #270-6 | 25-1 Idler Gearbox .162" axle (AF 'S') | #1270-6 |
| #271-6 | 25-1 Gearbox .162" axle (AF 'S' gauge) | #1271-6 |
| #272-6 | 25-1 Idler Gearbox 4.0mm axle          | #1272-6 |
| #273-6 | 25-1 Gearbox 4.0mm axle                | #1273-6 |

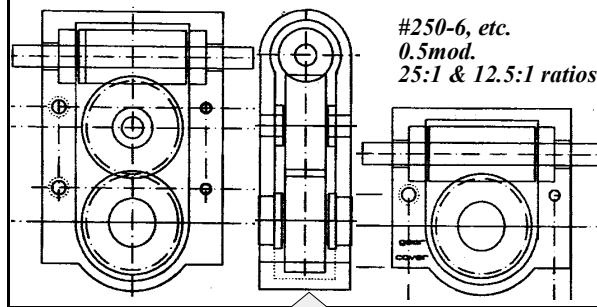
### Hi-Lo sets for articulateds

- |        |  |         |
|--------|--|---------|
| #290-6 | 25-1 Hi-Lo Artic. Gearbox set 3/16" axle | #1290-6 |
| #291-6 | 25-1 Hi-Lo Artic. Gearbox set 1/4" axle  | #1291-6 |
| #292-6 | 25-1 Hi-Lo Artic. Gearbox set 5.0mm axle | #1292-6 |
| #293-6 | 25-1 Hi-Lo Artic. Gearbox set 5.8mm axle | #1293-6 |
| #294-6 | 25-1 Hi-Lo Artic. Gearbox set 6.0mm axle | #1294-6 |

Note: for heavier duty 0.6 mod series gearbox kits (heavy 'O' and  
Large Scale) - see the #650-6 series (overside).

### 0.5 mod. Input Shaft conversion kits (to 2.4mm)

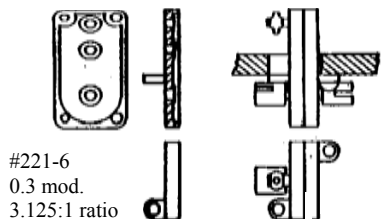
- |        |   |
|--------|---|
| #280-6 | 2.4mm Right hand Wormshaft Conversion (idler)     |
| #281-6 | 2.4mm Lefthand Worm Shaft Conversion (non- Idler) |



#250-6, etc.  
0.5mod.  
25:1 & 12.5:1 ratios

# TRANSFER GEARBOXES

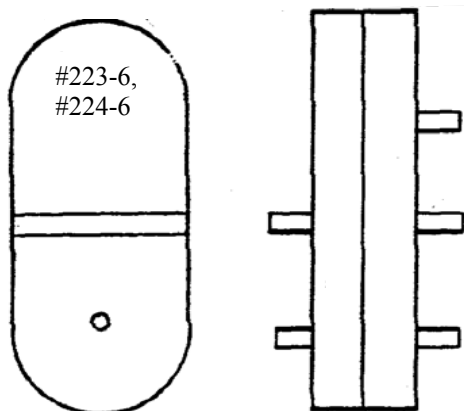
transfer power to a parallel shaft  
below (offset from) the input shaft



#221-6  
0.3 mod.  
3.125:1 ratio

## TRANSFER GEARBOX KITS

- #221-6 3.125:1 Transfer gearbox 0.3mod. 1.5mm shafts  
Above is suitable for small HO size, light duty applications. Below are suitable for 'S' and light duty applications in 'O' size models .  
#223-6 1:1 Transfer gearbox 0.4mod. 2.4mm shafts  
#224-6 1.89:1 Transfer gearbox 0.4mod. 2.4mm shafts



#223-6,  
#224-6

NWSL Universal couplings, Flywheels, Precision 12V DC motors, Hookup wire, Bearings, Wheelsets, Tools, to aid & enhance your fine modeling craftsmanship.

## General suitability (capacity) Scale—tooth size

- N—0.25, 0.3module  
HO—0.3, 0.35 (72DP), 0.4module  
S—0.4, 0.5 module  
O—0.5, 0.6, 0.7module  
G, LargeScale—0.6, 0.7module

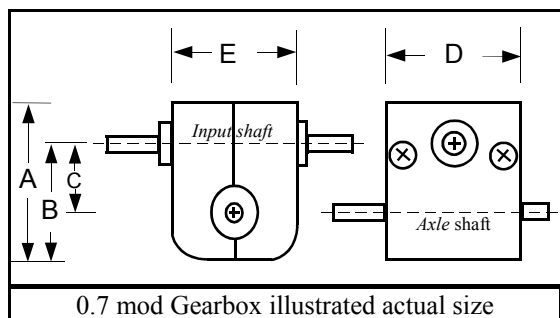
## 0.6 Module Series GEARBOX KITS for 'O' and Large Scale with Ball-Bearing wormshaft, bronze axle bearings— choice of idler and direct geared styles

See 0.5mod series drawings overside for style and approximate size of these heavier duty 0.6mod series gearboxes.

- |                                    |   |
|------------------------------------|---|
| #650-6                             | 23-1 0.6mod Idler Gearbox kit 3/16" axle        |
| #651-6                             | 23-1 0.6mod Gearbox kit 3/16" axle              |
| #652-6                             | 23-1 0.6mod Idler Gearbox kit 1/4" axle         |
| #653-6                             | 23-1 0.6mod Gearbox kit 1/4" axle               |
| #654-6                             | 23-1 0.6mod Idler Gearbox kit 5.0mm axle        |
| #655-6                             | 23-1 0.6mod Gearbox kit 5.0mm axle              |
| #656-6                             | 23-1 0.6mod Idler Gearbox kit 5.8mm axle        |
| #657-6                             | 23-1 0.6mod Gearbox kit 5.8mm axle              |
| #658-6                             | 23-1 0.6mod Idler Gearbox kit 6.0mm axle        |
| #659-6                             | 23-1 0.6mod Gearbox kit 6.0mm axle              |
| #660-6                             | 11.5-1 0.6mod Idler Gearbox kit 3/16" axle      |
| #661-6                             | 11.5-1 0.6mod Gearbox kit 3/16" axle            |
| #662-6                             | 11.5-1 0.6mod Idler Gearbox kit 1/4" axle       |
| #663-6                             | 11.5-1 0.6mod Gearbox kit 1/4" axle             |
| #664-6                             | 11.5-1 0.6mod Idler Gearbox kit 5.0mm axle      |
| #665-6                             | 11.5-1 0.6mod Gearbox kit 5.0mm axle            |
| #666-6                             | 11.5-1 0.6mod Idler Gearbox kit 5.8mm axle      |
| #667-6                             | 11.5-1 0.6mod Gearbox kit 5.8mm axle            |
| #668-6                             | 11.5-1 0.6mod Idler Gearbox kit 6.0mm axle      |
| #669-6                             | 11.5-1 0.6mod Gearbox kit 6.0mm axle            |
| <b>Hi-Lo sets for articulateds</b> |   |
| #690-6                             | 23-1 0.6mod Hi-Lo Artic. Gearbox set 3/16" axle |
| #691-6                             | 23-1 0.6mod Hi-Lo Artic. Gearbox set 1/4" axle  |
| #692-6                             | 23-1 0.6mod Hi-Lo Artic. Gearbox set 5.0mm axle |
| #693-6                             | 23-1 0.6mod Hi-Lo Artic. Gearbox set 5.8mm axle |
| #694-6                             | 23-1 0.6mod Hi-Lo Artic. Gearbox set 6.0mm axle |

## 0.7 module heavy duty 'O', 'G', Large Scale all ball-bearing axle gearbox kits

- #700-6\* \$54.95 1:1 1/8" axle gearbox kit  
#750-6\* \$54.95 14:1 1/8" axle gearbox kit  
\*See the Product List for complete listing of wheel-set choices.



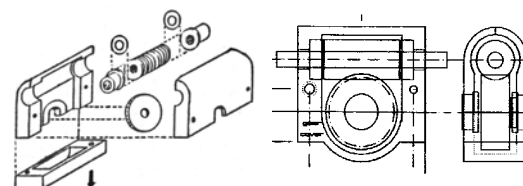
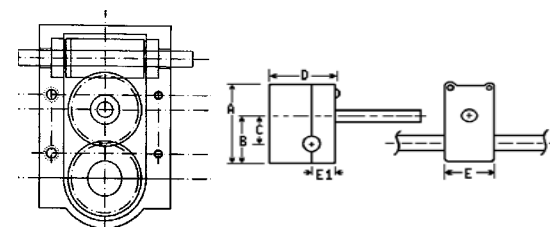
0.7 mod Gearbox illustrated actual size

136-6/170-6/240-6/250-6/650-6/etc.

all scales

Replace worn and broken gearing & you create fine operating models

## Precision gearbox kits for Railroad Models, Animations, Miniatures



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Gear