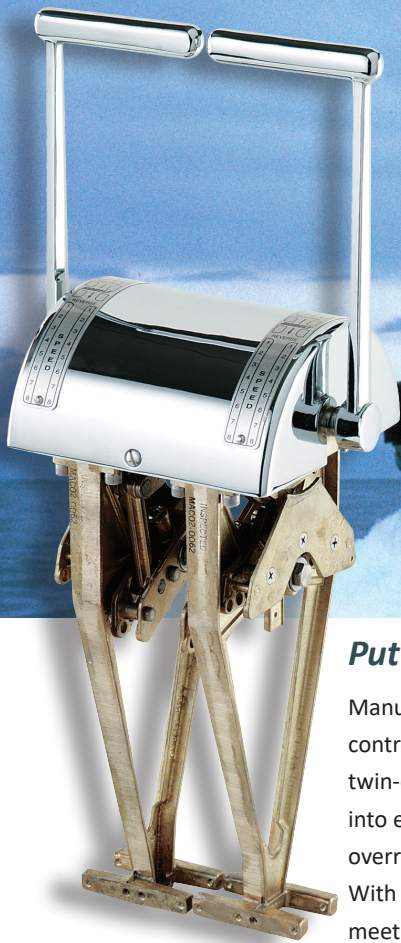


# 2048 | PUSH-PULL CONTROL



## Putting you in control.

Manufactured for the marine environment, the Kobelt 2048 push-pull control is the rugged solution for your vessel. The control head features twin-engine control with both the clutch and throttle control integrated into each lever. The Kobelt 2048 also features a spring-loaded throttle override which permits running the engine with the clutch disengaged. With a wide array of options to choose from, Kobelt has the product to meet your propulsion control needs.

## Key Features

- Twin-engine propulsion control<sup>1</sup>
- Throttle override capability
- Selectable strokes (4 positions)
- Suitable for 30 & 40 series cable
- Configurable design to suit requirements
- Bronze & stainless steel construction

## Specifications

### Handle Travel:

|                             |         |          |
|-----------------------------|---------|----------|
| • Neutral:                  | 0°      | Detented |
| • Clutch engage:            | +/- 30° | Detented |
| • Full throttle:            | +/- 85° | -        |
| • Over-travel: <sup>2</sup> | 92°     | Detented |

### Pin position:

| Stroke:     | 1                    | 2                    | 3                    | 4                    | 5 <sup>5</sup>       | 6 <sup>5</sup>       | 7 <sup>5</sup>       | 8 <sup>5</sup>       |
|-------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| • Clutch:   | ±0.66 in<br>[±17 mm] | ±0.93 in<br>[±24 mm] | ±1.20 in<br>[±30 mm] | ±1.48 in<br>[±38 mm] | ±2.11 in<br>[±54 mm] | ±2.29 in<br>[±58 mm] | ±2.48 in<br>[±63 mm] | ±2.66 in<br>[±68 mm] |
| • Throttle: | 0.86 in<br>[22 mm]   | 1.21 in<br>[31 mm]   | 1.55 in<br>[39 mm]   | 1.90 in<br>[48 mm]   | 2.33 in<br>[59 mm]   | 2.53 in<br>[64 mm]   | 2.74 in<br>[70 mm]   | 2.94 in<br>[75 mm]   |

### Maximum Force Output:<sup>3</sup>

|             |                    |                    |                   |                   |                   |                   |                   |                   |
|-------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| • Clutch:   | 147 lbf<br>[654 N] | 106 lbf<br>[472 N] | 83 lbf<br>[369 N] | 68 lbf<br>[302 N] | 50 lbf<br>[222 N] | 46 lbf<br>[205 N] | 42 lbf<br>[187 N] | 39 lbf<br>[173 N] |
| • Throttle: | 121 lbf<br>[539 N] | 90 lbf<br>[399 N]  | 71 lbf<br>[315 N] | 59 lbf<br>[261 N] | 43 lbf<br>[191 N] | 40 lbf<br>[176 N] | 37 lbf<br>[163 N] | 34 lbf<br>[152 N] |

### Lever Ratio:

|                          |       |       |       |       |       |       |       |       |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| • Clutch:                | 5.1:1 | 3.7:1 | 2.9:1 | 2.4:1 | 1.8:1 | 1.6:1 | 1.5:1 | 1.4:1 |
| • Throttle: <sup>4</sup> | 4.2:1 | 3.1:1 | 2.4:1 | 2.0:1 | 1.5:1 | 1.4:1 | 1.3:1 | 1.2:1 |

Ambient Temperature: -40°F...+140°F [-40 °C... + 60 °C]

Weight: 14.4 lbs [6.5 kg]

<sup>1</sup> Single station control only – transfer unit must be used for two stations.

<sup>2</sup> Forward direction only.

<sup>3</sup> Estimated output force is at end of stroke based on an input force of 29lbf on a "Tee" handle. Output force must not exceed rated cable force.

<sup>4</sup> At end of stroke, lever ratio increases towards neutral.

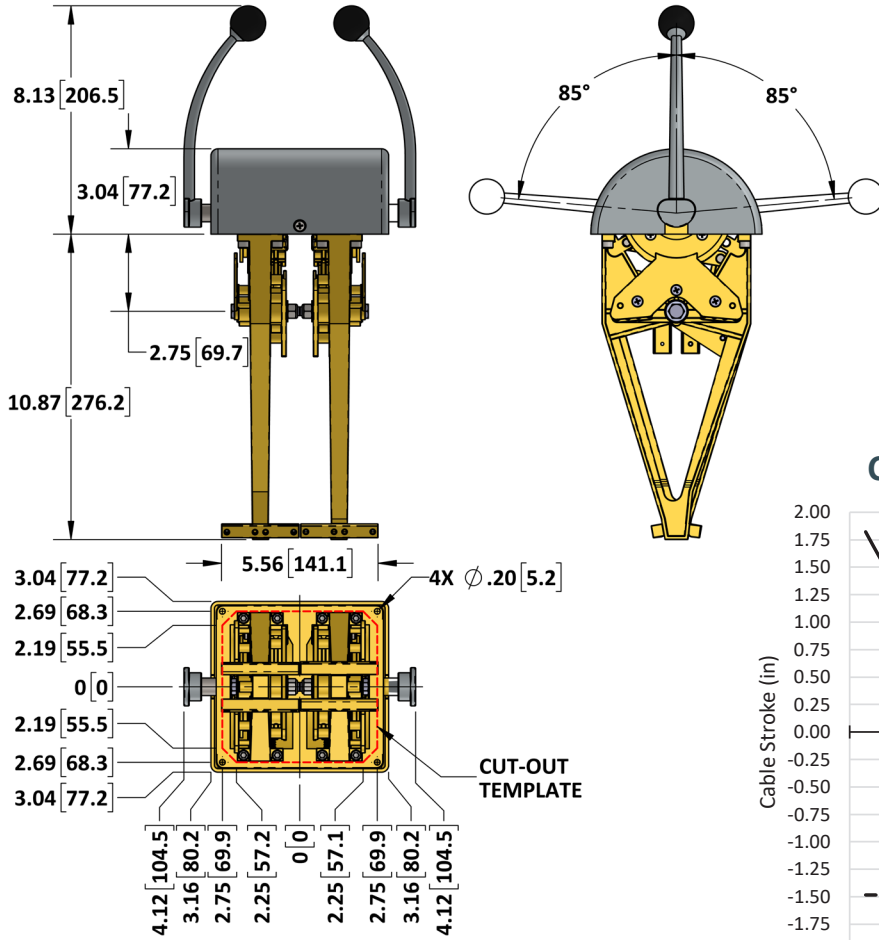
<sup>5</sup> Requires extension kit.

8238 129th Street, Surrey, British Columbia, Canada, V3W 0A6

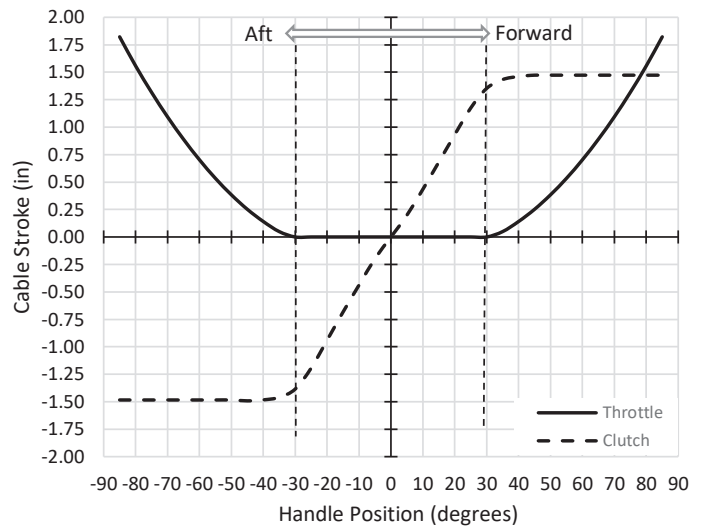
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# KOBELT

# SPECIFICATIONS



## Clutch & Throttle Engagement



### Model Code Key

2048- ← (list in alphabetical order)

#### Safety Options

- J = Two neutral safety switches
- Blank = No safety option

#### Finish Options

- K = chrome plated
- L = polished brass
- M = black painted dome & chrome plated handles
- Z = metal position labels

#### Handle Options

- U = Two curved handles with knobs
- V = Two tee handles with plastic grips
- X = Two short tee handles
- Y = Two long tee handles

### Popular Configurations:

2048-KYZ

### Accessories

- 2046-0901 Connector kit, 30 series cable
- 2046-0902 Connector kit, 40 series cable
- 2046-0903 Switch kit, neutral safety
- 2046-0015 label; FWD – NEUTRAL – REV
- 2046-0905 Throttle/clutch extension kit; 30 series cable
- 2046-0906 Throttle/clutch extension kit; 40 series cable

Note: Cable kits must be ordered separately