Signal Framework

Side Pole
Post Top
Overhead
Mast Arm
Pedestrian
Pipe Fittings
Pole Hardware
Special / Custom

Overview
McCain’s Signal Framework collection covers the gamut of your signal needs including, side-of-pole and post top mountings, overhead mounting, mast arm mounts, post top and side-of-pole pedestrian framework, pipe fittings, hardware, and special/custom mounting options. All of McCain’s framework options are built to McCain’s high-quality standards and manufactured from high-grade materials providing you with a dependable and rugged product.

Benefits
- Compatible with standard signals, programmable signals, and pedestrian housings
- Standard 1½-11½ NPT, schedule 40
- Complete line of fittings, pole mounts, pipe and nipples, terminal compartments, and more
- Wide variety of mounting types and configurations

Product Description
The McCain Signal Framework collection is a long-lasting compliment to our complete line of signal heads and pedestrian signals.

8” and 12” signal heads can be combined in the same mountings, and are available in many standard configurations. Commonly featuring one to four signal heads per mount, framework is available for top-of-pole, side-of-pole, span wire, or mast arm, and with or without terminal compartments.

Based on a 1½-11½ NPT, schedule 40, McCain framework is industry-standard compatible. Pre-assembled frames come fully wired with 14 AWG wire for your convenience.

All framework is powder coated in standard or custom colors.
Framework Nomenclature and Description

Reference point for all framework designations is the door of the terminal compartment.

Examples:

Example designation for unsymmetrical framework shown above:

- Head No. 1: Offset LOD, outboard
- Head No. 2: Offset LOD, inboard BOD
- Head No. 3: Offset ROD

Standard Features

- 1½-11½ NPT
- 14 AWG THHN stranded wire

General Specifications

- Dimensions: Varies based on selected framework
- Wall Thickness: Schedule 40
- Thread: 1½-11½ NPT (1⅛’ diameter, 11⅛ threads per inch)
- Material: Steel, aluminium, or bronze, (specific materials may not be available for all framework items)
- Finish: Powder coated
- Color(s): Federal yellow, signal green, black, or custom colors
- Mounting: Side of pole, top of pole, mast arm
- Environmental: Operating temperature: -37°C to +74°C
- Humidity: 0 to 95% (non-condensing)
- Shipping Weight: Varies based on selected framework

Options

- Clamshell mount for pedestrian housings
- Other configurations and parts meeting specifications of many state Departments of Transportation are available. Please contact your McCain representative for further information

Details to Include When Ordering:

1. Material type for frame elements - steel, aluminium, or bronze (pole adaptor, slip fitting, terminal compartment, pole plate, etc.)
2. Signal face size (8”, 12”, or combo) and manufacturer of signal module (LED)
3. Designation (e.g., TV-2-T) indicating framework type
4. Orientation (left or right of door) of signal head mountings
5. Nipple lengths
6. Color
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Top-of-Pole Mountings Without Terminal Compartments

- Caltrans: TV-1
  - ADOT: Type III
- Caltrans: TV-2

Top-of-Pole Mountings With Terminal Compartments

- Caltrans: TV-1-T
  - ADOT: Type IV
- Caltrans: TV-2-T
  - ADOT: Type VI
- Caltrans: TV-3-T
  - ADOT: Type IX

Side-of-Pole Mountings Without Terminal Compartments

One Way

- Caltrans: SV
- Caltrans: SV-1
  - ADOT: Type XI

Two Way

- Caltrans: SV-2A
- Caltrans: SV-2B

Note: All signals shown without backplates for clarity
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Side-of-Pole Mountings With Terminal Compartments

<table>
<thead>
<tr>
<th>One Way</th>
<th>Two Way</th>
<th>Three Way</th>
<th>Four Way</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>Caltrans: SV-1-T</td>
<td>Caltrans: SV-2-TA</td>
<td>Caltrans: SV-3-TA</td>
<td>Caltrans: SV-4-TA</td>
</tr>
<tr>
<td>ADOT: Type V</td>
<td>ADOT: Type VII</td>
<td>ADOT: Type VII</td>
<td></td>
</tr>
<tr>
<td>NDOT: B-1</td>
<td>NDOT: B-2b</td>
<td>NDOT: B-2b</td>
<td></td>
</tr>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
<tr>
<td>Caltrans: SV-2-TB</td>
<td>Caltrans: SV-3-TB</td>
<td>Caltrans: SV-4-TB</td>
<td></td>
</tr>
<tr>
<td>NDOT: B-3a</td>
<td>NDOT: B-3c</td>
<td>NDOT: B-3b</td>
<td></td>
</tr>
<tr>
<td><img src="image9.png" alt="Image" /></td>
<td><img src="image10.png" alt="Image" /></td>
<td><img src="image11.png" alt="Image" /></td>
<td><img src="image12.png" alt="Image" /></td>
</tr>
<tr>
<td>Caltrans: SV-2-TC</td>
<td>Caltrans: SV-3-TC</td>
<td>Caltrans: SV-4-TC</td>
<td></td>
</tr>
<tr>
<td>NDOT: B-2b</td>
<td>NDOT: B-3a</td>
<td>NDOT: B-3a</td>
<td></td>
</tr>
</tbody>
</table>

Note: All signals shown without backplates for clarity
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Left Turn Mountings

No Terminal Compartment

- Caltrans: LT-2-A
- Caltrans: LT-2-B
- Caltrans: LT-2-T
  - ADOT: Type: X

With Terminal Compartment

Mast Arm Mountings

- Caltrans: MAT
  - ADOT: Type I
- Caltrans: MAS
  - ADOT: Type II

- Caltrans: MAS-4A
- Caltrans: MAS-4B
- Caltrans: MAS-4C
- Caltrans: MAS-5A

Note: All signals shown without backplates for clarity.
Span Wire Mountings

One Way
- Caltrans: SW-1
Two Way
- Caltrans: SW-2
Three Way
- Caltrans: SW-3
Four Way
- Caltrans: SW-4

Mast Arm Mountings

One Way
- Caltrans: MAS
- Caltrans: MAT-1
Two Way
- Caltrans: MAT-2
Three Way
- Caltrans: MAT-3
Four Way
- Caltrans: MAT-4

Pedestrian Side-of-Post Mountings

- Caltrans: SP-1
  ADOT: Type XI
- Caltrans: SP-2
- Caltrans: SP-1-T
  ADOT: Type V
  NDOT: WS-1 (modified)
- Caltrans: SP-2-T
  ADOT: Type VII
  NDOT: WS-2

Pizza.png

Note: ADOT Type VIII ped same configuration as Caltrans SV-2-TD signal

Pedestrian Top-of-Post Mountings

- Caltrans: TP-1
  NDOT: WT-1
- Caltrans: TP-1-T
  ADOT: Type IV
- Caltrans: TP-2-T
  ADOT: Type VI
  NDOT: WT-2
### Adaptors and Mounts - Top-of-Pole

<table>
<thead>
<tr>
<th>Description</th>
<th>Aluminum</th>
<th>Bronze</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapter, terminal compartment, top-of-pole, 2-way</td>
<td>M18810 (black)</td>
<td>M18812 (green)</td>
</tr>
<tr>
<td>(includes 12-position terminal block, door, &amp; gasket)</td>
<td>M68964 (black)</td>
<td>M68965 (black)</td>
</tr>
<tr>
<td>Adapter, terminal compartment, top-of-pole, 3-way</td>
<td>M18816 (green)</td>
<td>M18817 (green)</td>
</tr>
<tr>
<td>(includes 12-position terminal block, door, &amp; gasket)</td>
<td>M68964 (black)</td>
<td>M68966 (black)</td>
</tr>
<tr>
<td>Adapter, top-of-pole, offset mount, serrated</td>
<td>M18510 (green)</td>
<td>M18511 (green)</td>
</tr>
<tr>
<td>(includes lock nipple)</td>
<td>M31351 (black)</td>
<td>M33300 (black)</td>
</tr>
<tr>
<td>Adapter, top-of-pole, offset mount, serrated, 1 side port (includes lock nipple)</td>
<td>M34536 (green)</td>
<td>M18805-1 (green)</td>
</tr>
<tr>
<td>Adapter, top-of-pole, center mount, plain, 2 side ports 180°</td>
<td>M18806</td>
<td>M18807</td>
</tr>
<tr>
<td>Adapter, top-of-pole, center mount, plain, 4 side ports 90°</td>
<td>M45667 (green)</td>
<td>M45668 (green)</td>
</tr>
<tr>
<td>(includes lock nipple)</td>
<td>M45669 (black)</td>
<td>M45670 (black)</td>
</tr>
<tr>
<td>Adapter, cabinet pedestal, top-of-pole, 4½” O.D. pole</td>
<td>M18872</td>
<td>M15323 (silver)</td>
</tr>
</tbody>
</table>

**Notes:**

1. All slip fittings furnished with set screws.
2. Bronze refers to compartment material. Doors are aluminum.
3. Customer must specify a color for part numbers not associated with a specific color as noted.
4. Colors other than those noted are available. Please contact your McCain representative.
5. na = not available.
## Adaptors and Mounts - Side-of-Pole

<table>
<thead>
<tr>
<th>Description</th>
<th>Aluminum</th>
<th>Bronze</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapter, terminal compartment, side-of-pole, 2-way, saddle back with cable</td>
<td>M18822</td>
<td>M18824 (green)</td>
</tr>
<tr>
<td>guide (center of back) and mounting holes (includes 12-position terminal</td>
<td>M68967 (black)</td>
<td></td>
</tr>
<tr>
<td>block, door, &amp; gasket)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adapter, terminal compartment, side-of-pole, 2-way, saddle back with cable</td>
<td>na</td>
<td>M18826 (green)</td>
</tr>
<tr>
<td>guide (bottom of back) and mounting holes (includes 12-position terminal</td>
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<td></td>
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<tr>
<td>block, door, &amp; gasket)</td>
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<td></td>
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<tr>
<td>Adapter, terminal compartment, side-of-pole, 2-way, flat back with cable</td>
<td>M18877</td>
<td>M18879</td>
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<tr>
<td>entrance (center of back) and mounting holes (includes 12-position terminal</td>
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<tr>
<td>block, door, &amp; gasket)</td>
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<td></td>
</tr>
<tr>
<td>Terminal Compartment Door</td>
<td>M68962 (green)</td>
<td>na</td>
</tr>
<tr>
<td>Pole Plate without cable guide</td>
<td>na</td>
<td>M31251 (green)</td>
</tr>
<tr>
<td>Pole Plate with cable guide</td>
<td>na</td>
<td>M30926 (green)</td>
</tr>
<tr>
<td>Pole Plate, bandable</td>
<td>M18791</td>
<td>na</td>
</tr>
</tbody>
</table>

See notes previous page
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Pipe Fittings, 1½-11½ NPT

1. Elbow, standard
2. Elbow, flanged 1 port
3. Elbow, serrated one port
4. Elbow, slip fit one port
5. Coupling, serrated one port
6. Cross, standard
7. Cross, slip fit one port
   Slip cross, slip fit two opposite ports
8. Cross, serrated 1 port
9. Tee, standard
10. Tee, slip fit side port
11. Tee, serrated side port
12. Tee, serrated run 1 port
13. Tee, side outlet
14. Tee, slip fit side outlet
15. Slip tee, slip fit on run 2 ports
   Tee, slip fit on run 1 port

Note: All slip fittings furnished with set screws

Framework Parts, 1½-11½ NPT

1. Extender, flanged
   Extender, Shurlock
2. Lock nipple
3. Cap, ornamental, long, 1½"
4. Cap, ornamental, short, ½"
5. Plug, square head, 1½"
6. Locknut, malleable iron
7. Locknut, conduit, cadmium plated
8. Lock washer, internal tooth, cadmium plated
9. Lock ring, serrated
10. Washer, flat, aluminum
11. Washer, neoprene
12. Washer, cork
13. Cap, stud, mono (available in yellow, green, and black only)
14. Terminal block, 5-position (other sizes also available)
Pipe and Nipples

Details to Include When Ordering:
1. Length
2. Color
3. Type of ends
   - OE = Open End (not threaded)
   - TOE = Threaded On End
   - DP = Drop Pipe (3” threads)

Examples:

<table>
<thead>
<tr>
<th>Length</th>
<th>Color</th>
<th>End Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>10”</td>
<td>TOE</td>
<td>TOE</td>
</tr>
<tr>
<td>10”</td>
<td>TOE</td>
<td>DP</td>
</tr>
<tr>
<td>10”</td>
<td>TOE</td>
<td>OE</td>
</tr>
</tbody>
</table>

Designations for pipe above:
- Pipe No. 1: 10”, color, TOE, TOE
- Pipe No. 2: 10”, color, TOE, DP
- Pipe No. 3: 10”, color, TOE, OE

Framework Bolts and Hardware
Hot-Dipped Galvanized, Extended Thread Length

Bolts available in 1/2-13 UNC and 5/8-11 UNC (City of LA):
- 6”, 8”, 9”, 10”, 12”, 14”, 16”, and 18” lengths

Additional available lengths in 1/2” only:
- 7”, 20”, 22”, and 24”

Bolt Assembly:

A complete bolt assembly consists of 2 flat washers, a curved washer, a lock washer, a hex nut, and a bolt of a specified length.