# TABLE OF CONTENTS

**PRODUCT SUMMARY** .................................................................................................................... 2

6036 CAN DIRECTION INDICATOR ........................................................................................................ 3

**INSTALLATION INSTRUCTIONS** .................................................................................................. 4

TOOLS & MATERIALS REQUIRED ......................................................................................................... 4

MECHANICAL INSTALLATION ................................................................................................................. 4

ELECTRICAL INSTALLATION INSTRUCTIONS .................................................................................... 7

**OPERATING INSTRUCTIONS** ......................................................................................................... 10

NORMAL OPERATION .......................................................................................................................... 10

**MAINTENANCE INSTRUCTIONS** .................................................................................................. 12

**TROUBLESHOOTING** ...................................................................................................................... 13

AKROVIEW SOFTWARE .......................................................................................................................... 13

**REVISION HISTORY** ....................................................................................................................... 14

## LIST OF ILLUSTRATIONS

Figure 1 – Surface Mounting Hole Layout .......................................................................................... 5

Figure 2 – Flush Mount Hole Layout ................................................................................................ 6

Figure 3 – Adapter Plate Hole Layout ................................................................................................ 6

Figure 4 – Connector Label ............................................................................................................... 7

Figure 5 - Typical Electrical Connections ......................................................................................... 8

Figure 6 – Typical J1939 Wiring ......................................................................................................... 9

Figure 7 – Landscape Label ............................................................................................................... 10

Figure 8 – Portrait Label ................................................................................................................... 11
SAFETY SUMMARY
SIGNAL WORD DEFINITION

Per the ANSI Z535.4 standard, the following signal words and definitions are used to indicate hazardous situations:

⚠️ **DANGER** indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

⚠️ **WARNING** indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

⚠️ **CAUTION** indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It is also used to alert against unsafe practices.

GENERAL SAFETY PRECAUTIONS
The following are general safety precautions that are not related to any specific procedures and therefore do not appear elsewhere in this publication. These are recommended precautions that personnel must understand and apply during many phases of operation and maintenance.

⚠️ **WARNING** For fire fighting use only by trained fire fighters.

⚠️ **CAUTION** Although the enclosure for the Direction Indicator is water-resistant, it is important to keep water out of the enclosure. Prolonged exposure to water will cause damage. When the cover of the enclosure is removed, make sure the seal under the cover is intact and free of dirt and debris.

⚠️ **CAUTION** This product must be wired in adherence with the SAE J1939/11 specification. Failure to do so may result in sporadic operation or non-operation.

⚠️ **CAUTION** While this device is designed to reside on a standard J1939 CAN network, it is recommended that Akron Brass CAN products operate on their own CAN network isolated from the other CAN networks on the vehicle.
PRODUCT SPECIFICATIONS

6036 CAN DIRECTION INDICATOR

- Power - 8 to 33 volts DC, <.25 amperes
- Operating Temperature - -40°C. to +85°C.
- Storage Temperature - -50°C. to +85°C.
- Communications – J1939/11 CAN Network
TOOLS & MATERIALS REQUIRED

- Medium Phillips screwdriver
- Small flat screwdriver
- Metric Allen Wrench Set
- Deutsch Crimping Tool
- Deutsch DTM06-4S-CE13 or equivalent and associated crimp terminals
- Optional Akron Brass 721579 pre-wired connector/harness

MECHANICAL INSTALLATION

The 6036 CAN Direction Indicator comes with a mounting kit that allows either surface or flush mounting.

For a surface mount application, carefully remove the lid of the Direction Indicator by loosening the four screws on each corner of the lid. Drop one each of the M2.5 X 14 mm cap screws head first into the four holes in the main enclosure body directly under the four small holes in the lid. Replace and reattach the lid. Using the appropriate Allen wrench, attach the flush mount bezel to the Direction Indicator. See Figure 1 for recommended panel cutout.

For a flush mount application, three methods may be utilized. When access to the back of the mounting surface is available, use four M5 screws from behind to directly mount the Direction Indicator to the surface. See Figure 2 for recommended hole layout.

A second flush mount method utilizes the included adapter plate. Use the included M5 flat head screws to attach the adapter plate to the bottom of the Direction Indicator. Next, utilizing four screws of the customer’s choosing, attach the Direction Indicator to the mounting surface. See Figure 3 for recommended hole layout.

A third flush mount method is achieved by inserting four screws through the top of the lid all the way through the CAN Direction Indicator to threaded holes located underneath in the mounting surface.

CAUTION

Although the enclosure for the Direction Indicator is water-resistant, it is important to keep water out of the enclosure. Prolonged exposure to water will cause damage. When the cover of the enclosure is removed, make sure the seal under the cover is intact and free of dirt and debris.
Surface Mounting Hole Layout
The following is intended to provide the basic instructions for electrical installation of the 6036 CAN Direction Indicator. Refer to Figure 4, Figure 5, and Figure 6 for additional information. Wiring must be in compliance with SAE J1939 for proper operation.

**Step 1**  Connect Battery Positive to Pin #1 (use of Akron Brass Harness stub part number 721579 is recommended)

**Step 2**  Connect Battery Negative to Pin #2

**Step 3**  Connect CAN HI to Pin #3 (Akron Brass Harness stub part number 721579 already has this pin properly connected to a J1939 CAN network stub connector)

**Step 4**  Connect CAN LO to Pin #4 (Akron Brass Harness stub part number 721579 already has this pin properly connected to a J1939 CAN network stub connector)

**Step 5**  Add a terminating resistor if this device is at the end of the network.

⚠️ **CAUTION**  This product must be wired in adherence with the SAE J1939/11 specification. Failure to do so may result in sporadic operation or non-operation.

⚠️ **CAUTION**  While this device is designed to reside on a standard J1939 CAN network, it is recommended that Akron Brass CAN products operate on their own CAN network isolated from the other CAN networks on the vehicle.
Figure 5: Typical Electrical Connections

1) J1939 CAN requires 130 ohm terminating resistors at each end of network.
2) See drawing D-4473 for additional information on CAN wiring.
**SUGGESTED PARTS LIST**

**INstead of Terminating Resistor, May Continue on to Remaining Vehicle Can Network**

- **A** Deutsch IPD HDP26-24-29 SE PLUG 758310
- **B** Deutsch IPD DT06-3S-EP11 PLUG w/ W3S-P012 WEDGE LOCK 742204 / 784201
- **C** Deutsch IPD DT06-3S-P006 TERMINATING RESISTOR ASSEMBLY 742205
- **D** Deutsch IPD DT04-3P-P007 "Y" RECEPTACLE 758306
- **E** Deutsch IPD DT06-3S-EP11 PLUG w/ W3S-1939-P012 WEDGE LOCK 742204 / 784200
- **F** Deutsch IPD DT06-4S w/ W4S WEDGE LOCK 707427 / 785025
- **G** Champlain Wire
- **H** Raychem Northwire
- **I** Judd Wire
- **J** SAEJ1939/1802SHBLK or 2018E0309 or FJ1939182-005 or M0702001

**Typical J1939 Wiring**

NETWORK LENGTH (TERMINATOR TO TERMINATOR) NOT TO EXCEED 40 METERS
NORMAL OPERATION
The 6036 CAN Direction Indicator is Plug and Play, and comes ready to use. During power-up, the device runs through a self-test of the LED's. If any of the LED's do not light at some point during this test, contact Akron Brass customer support. If at the end of the test the LED's do not begin showing position but rather begin flashing all red LED's, perform zeroing of the monitor (refer to the Universal II Operating Manual for further instructions). If there is only one Universal II on the network, and the monitor has been zeroed, the Direction Indicator should automatically begin displaying position with no further setup.

NOTE: The 6036 CAN Direction Indicator is designed to be as benign as possible on a typical J1939 network. It performs standard address claiming. It listens for CAN position messages broadcast by the 6032 Universal II. It is possible to have multiple Universal II's and Direction Indicators on the same network. Contact Akron Brass customer support if this is a requirement.

NOTE: The 6036 CAN Direction Indicator can be ordered in Portrait or Landscape mode. It is essentially the same device with a different label. There is a setup mode that the 6036 can be put into to change the mode in the field. Normally, this will not be necessary as the device comes from the factory appropriately set.

WARNING For fire fighting use only by trained fire fighters.
Figure 8

Portrait Label
MAINTENANCE INSTRUCTIONS

The 6036 CAN Direction Indicator has no user serviceable parts inside. If the device fails to operate properly, please contact an Akron Brass customer service representative for a replacement. Periodically examine the LEDs during the power up routine to ensure they are working properly.
REVISION HISTORY

Revision 0 – 7/8/11 Initial release.
Revision 1 – 8/10/11 General formatting and addition of Illustrations.
AKROVIEW SOFTWARE
As with all of the Akron Brass CAN product family, the 6036 CAN Direction Indicator supports the Akroview Software. The software provides additional diagnostics as well as software updating and other capabilities. Contact Akron Brass for additional information on how you can obtain a copy of Akroview software.
WARRANTY AND DISCLAIMER: We warrant Akron Brass products for a period of five (5) years after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service.

We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; damage; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty.