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SAFETY SUMMARY
SIGNAL WORD DEFINITION

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

⚠️ **DANGER**

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

⚠️ **WARNING**

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

⚠️ **CAUTION**

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 CAN I/O Module is water-resistant, it is important to keep water out of the enclosure. Prolonged exposure to water may cause damage.

⚠️ **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

6039 CAN I/O MODULE
- Power – 8 to 33 volts DC, <0.25 amperes (less output load current)
- Operating Temperature – -40°C to +85°C
- Storage Temperature – -50°C to +85°C
- Communications – J1939/11 CAN Network
- Interface with switches whose opposing side is tied to battery positive
- Interface with loads whose opposing side is tied to battery negative
- Drives 1 amp DC loads
- Specialized variants for custom applications

INSTALLATION INSTRUCTIONS

TOOLS & MATERIALS REQUIRED
- Medium Phillips screwdriver
- Small flat screwdriver
- Wire Crimping Tool
- #8 or M4 Screws for mounting

MECHANICAL INSTALLATION
The 6039 CAN I/O Module comes with flanges for mounting. The holes in the flanges readily accept #8 or M4 screws.

⚠️ CAUTION
Although the enclosure for the CAN I/O Module is water-resistant, it is important to keep water out of the enclosure. Prolonged exposure to water may cause damage.

Figure 1
CAN I/O Module Hole Layout
ELECTRICAL INSTALLATION
The following is intended to provide the basic instructions for installation of the 6039 CAN I/O Module. Refer to Figure 2a, Figure 2b and Figure 3 for additional information. Wiring must be in compliance with SAE J1939 for proper operation.

Step 1 Connect Battery Positive to Pin #1 of the Deutsch connector (use of Akron Brass Harness stub part number 721708 is recommended)
Step 2 Connect Battery Negative to Pin #2 of the Deutsch connector
Step 3 Connect Switch Input #1 to Pin #3 of the Deutsch connector (other side of switch goes to battery positive).
Step 4 Connect Switch Input #2 to Pin #4 of the Deutsch connector (other side of switch goes to battery positive).
Step 5 Connect Output Load #1 to Pin #5 of the Deutsch connector (other side of load goes to battery negative).
Step 6 Connect Output Load #2 to Pin #6 of the Deutsch connector (other side of load goes to battery negative).
Step 7 Connect 3 Pin CAN connector to J1939 CAN Network stub side of Tee.

⚠️ 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.
TYPICAL HOOKUP
60390011 ARFF Module

INTERFACE CABLE 721708

- BATTERY

HIGH FLOW

AUX AGENT

+ BATTERY
Figure 3

Typical J1939 Wiring

CAN JOYSTICK (6035)
CUSTOMER WIRING USES
DEUTSCH DT06-4S PLUG

DIRECTION INDICATOR (6036)
CUSTOMER WIRING USES
DEUTSCH DT06-4S PLUG

UNIVERSAL II (6032) (CONNECTOR J1)
CUSTOMER WIRING USES
DEUTSCH HDP26-24-29SE

VEHICLE CAN HI
VEHICLE CAN LO
COMMON

SHIELD DRAIN WIRE MAY BE OPTIONALLY CONNECTED HERE.
IF SO, MUST NOT BE CONNECTED ELSEWHERE TO COMMON OR BATTERY NEGATIVE (-)
SEE J1939/11 SECTION 5.2.4

NETWORK LENGTH (TERMINATOR TO TERMINATOR) NOT TO EXCEED 40 METERS

**INSTEAD OF TERMINATING RESISTOR, MAY CONTINUE ON TO REMAINING VEHICLE CAN NETWORK**

SUGGESTED PARTS LIST
PLEASE REFER TO SAE J1939/11

**- KEY CODE**

- KEY CODE

- KEY CODE

ITEM MANUFACTURER DESCRIPTION A-B PART NUMBER

A Deutsch IPD HDP26-24-29SE PLUG 707581
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 WireRaychem NorthwireJudd Wire

SAEJ1939/1802SHBLK or2018E0309 orFJ1939182-005 orM0702001

GREEN YELLOW

120 ohm

GREEN YELLOW

GREEN YELLOW
OPERATING INSTRUCTIONS

NORMAL OPERATION
The 6039 CAN I/O Module is Plug and Play, and comes ready to use. Once installed, the CAN I/O Module can be used in conjunction with a Universal II or other Akron Brass control box to operate the monitor/turret.

NOTE: The 6039 CAN I/O Module is designed to be as benign as possible on a typical J1939 network. It performs standard address claiming. It issues proprietary J1939 messages. It is possible to have multiple Universal IIs and CAN I/O Modules on the same network. Contact Akron Brass customer support for custom software if this is a requirement.

WARNING
For fire fighting use only by trained fire fighters.

The 6039 family of CAN I/O Modules have various groups of functions. Refer to the control drawing for the 6039XXXX variant for additional I/O functions.

MAINTENANCE INSTRUCTIONS
The 6039 CAN I/O Module has no user serviceable parts inside. If the device fails to operate properly, please contact an Akron Brass customer service representative for a replacement.

TROUBLESHOOTING

AKROVIEW SOFTWARE
As with all of the Akron Brass CAN product family, the 6039 CAN I/O Module 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 profit) from any cause whatsoever. No person has authority to change this warranty.

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