AKRON®
BRASS COMPANY

STYLE 6041 END OF LADDER INTERFACE BOX
INSTALLATION & OPERATION INSTRUCTIONS

Table of Contents

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 firefighting use only by trained fire fighters.

⚠ WARNING Do not use the End of Ladder Interface Box inputs when the override cranks are being used or are in position for use.

⚠ 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

6041 End of Ladder Interface Box

- Power: 8 to 33 volts DC
- Operating Temperature: -40°C. to +85°C.
- Storage Temperature: -50°C. to +85°C.
- Communications: J1939/11 CAN Network

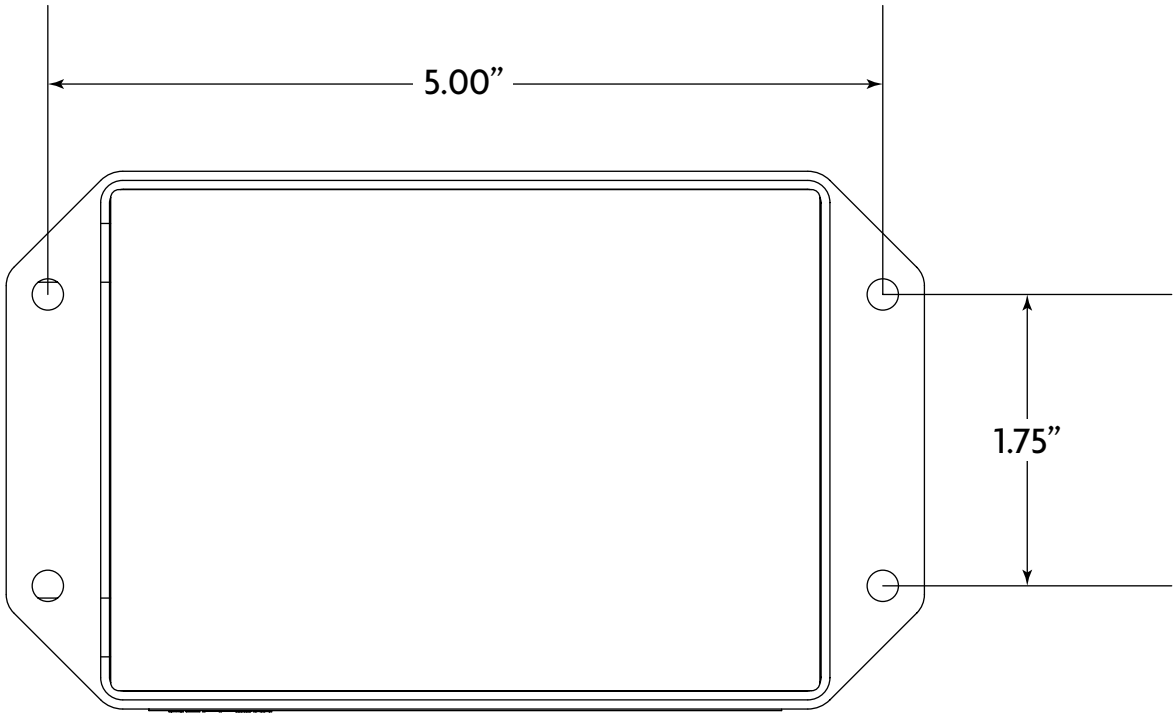
INSTALLATION INSTRUCTIONS

Tools & Materials Required

The mounting holes for the enclosure will accept up to Ø3/16” bolts or fasteners (mounting hardware not included)

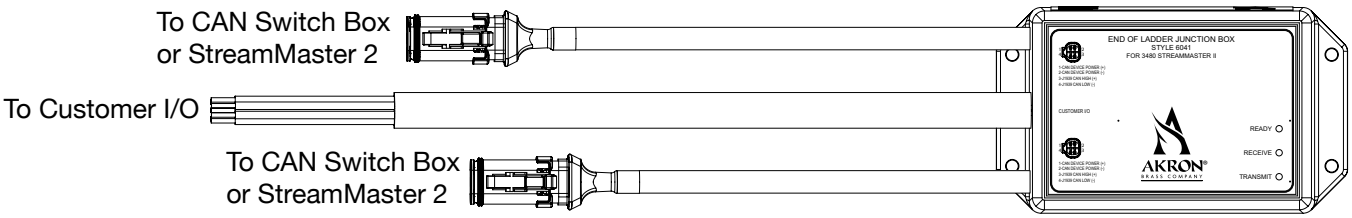
Mechanical Installation

FIGURE: 1



Electrical Installation

FIGURE: 2



Customer I/O Cable

Wire Color	Function
White/Black	Stream Switch
Orange/Black	Fog Switch
Red	Left Switch
Black	Right Switch
Green	Raise Switch
Blue	Lower Switch
Red/Black	Stow Switch
Orange	Ladder in Safe Zone - Input
Green/Black	Monitor is Stowed - Output
White	Monitor in Safe Zone - Output

Note: The red/black wire is a dedicated stow command input. There is no dedicated deploy input, however, this module supports “six wire” stow/deploy. If the module receives Fog, Stream and Right inputs at the same time for a duration of at least two seconds, it will initiate a Stow command. If the module receives Fog, Stream and Left inputs at the same time for a duration of at least two seconds, it will initiate a Deploy command.

SETUP AND CALIBRATION

Changes to the behavior of the End of Ladder Interface Box can be achieved by entering the setup mode. This can be done in the field with a small magnet. Three small dots located on the connector label (see Figure 7) identify the location of Hall Effect switches inside the switch box.

CHANGING THE PRIORITY LEVEL

The SAE J1939/71 specification has made provisions for up to six “joysticks” residing on the same CAN bus (Joystick1 through Joystick6). Akron Brass has chosen to interpret this assignment as the priority level. Joystick1 has the highest priority, and Joystick6 has the lowest priority. A device at Joystick3 issuing “go right” messages would override a device at Joystick5 issuing “go left” messages. Akron Brass has set the default for the 6041 CAN OEM Interface Box at Joystick1, the 6035 CAN Joystick at Joystick3, and the 6037 CAN Wireless Interface at Joystick5. Customers may require a different priority scheme. The following steps allow field changing of priority level.

Place a magnet over the Switch 1 dot for approximately one second (see Figure 7). All three LEDs will begin flashing the current priority level (the default will be three flashes). Momentarily placing a magnet over Switch 1 again will increase the Joystick number (decrease the priority) by one. Continue with momentarily placing a magnet over Switch 1 until the desired priority level has been reached. When Joystick6 has been reached, another Switch 1 activation will wrap around to Joystick1. When the desired priority level has been reached, momentarily place a magnet over Switch 2 to save the setting and the switch box will reset and return to normal operation.

NOTE: There cannot be two devices with the same priority level. If two devices are assigned the same priority level, only one will remain active on the network. The remaining device will become inactive and claim CAN node address 254 as defined and specified by SAE J1939.

FIGURE: 3

MAINTENANCE INSTRUCTIONS
The 6041 CAN End of Ladder Interface Box 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

Diagnostic LEDs
The CAN End of Ladder Interface Box has three LEDs located near the connector labeled Ready, Receive, and Transmit. Their colors are Green, Yellow, and Red respectively. Under normal operation, the Green Ready LED indicates the unit is powered and that the unit's microprocessor is running. The Yellow LED will blink on and off when there are CAN messages sent by other devices on the network that pertain to the End of Ladder Interface Box. The Red LED will light when the customer inputs are active to the End of Ladder Interface Box. Make sure that no two CAN operator devices (Joystick, Wireless, or Switch Box) have identical priority settings, otherwise one of them will become inactive.

Akroview Software
As with all of the Akron Brass CAN product family, the 6041 CAN End of Ladder Interface Box 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.

AKRON BRASS COMPANY
Tested... Proven... Trusted.
ISO 9001 REGISTERED COMPANY

PHONE: 330.264.5678 or 800.228.1161 | FAX: 330.264.2944 or 800.531.7335 | akronbrass.com

REVISED: 11/24