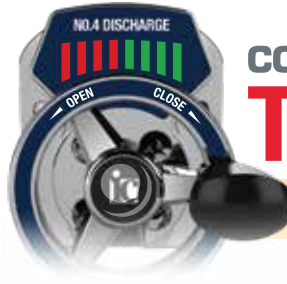




Innovative Controls



COMPACT Handwheel
This is it!

Ready For Sale

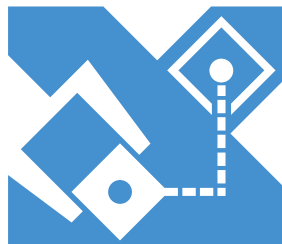


FDIC 2026

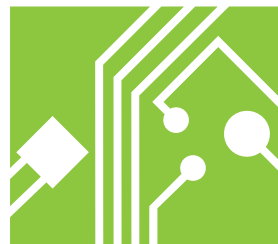
Booth 5274



**Fire Industry
Products**



**Contract
Manufacturing**



**Electronic
Manufacturing**



**Industrial
Print Shop**



Scan code to view our website

innovativecontrolsinc.com



Handwheel Side Mount Valve Controls

(Push-Pull Rod and Cable Handwheels can be mixed and matched on the same pump panel)



IC Handwheel Valve Position LED Display



Handwheel-Driven **Push-Pull Rod**



Handwheel-Driven **Cable Linkage**



Display Brightness

The brightness of the LED display can be changed at any time during operation by tapping a magnet in front of the sensor.

There are 4 brightness settings to choose from.

COMPACT Handwheel

Experience a new way to outfit your apparatus pump panel. Handwheels make valve actuation much easier than push-pull rods, but they have been very expensive and space-consuming; until now!

Innovative Controls Compact Handwheels are designed to fit in the same area as T-handle push-pull rods, but at a fraction of the cost of traditional handwheels.

IC Compact Handwheels have a 5 inch valve activation stroke length and utilize a 4.5 inch diameter wheel to drive either a linear rod or cable assembly. These two mechanical options can be mixed and matched on the same pump panel without changing the outward appearance of each control.

The front of the handwheel assembly features an electronic valve position display that correlates directly to the extension or retraction of handwheel's linear actuator and indirectly indicates the ball valve's open/close position using red and green LEDs.

A robust aluminum extrusion houses a lubricated brass worm gear, protecting it from environmental hazards. Teflon-impregnated bronze bushings guide a hard-coat anodized rod to ensure long-term smooth valve control operation. Our 4.5 inch handwheel has been vigorously tested and will easily open and close 3 inch ball valves.

Our Handwheel is not suitable for ball valves larger than 3 inches and / or all butterfly valves.

These valve controls include a chrome-plated diecast zinc bezel and are designed to install directly into the apparatus pump panel as a complete sub-assembly. The handwheel also features recessed UV-resistant labels for color-coding and verbiage.



Scan to Learn More

Looking for the best valve control value?

This is it!

Reliable • Affordable • Easy-to-Use

Ready For Sale





GOING DIGITAL

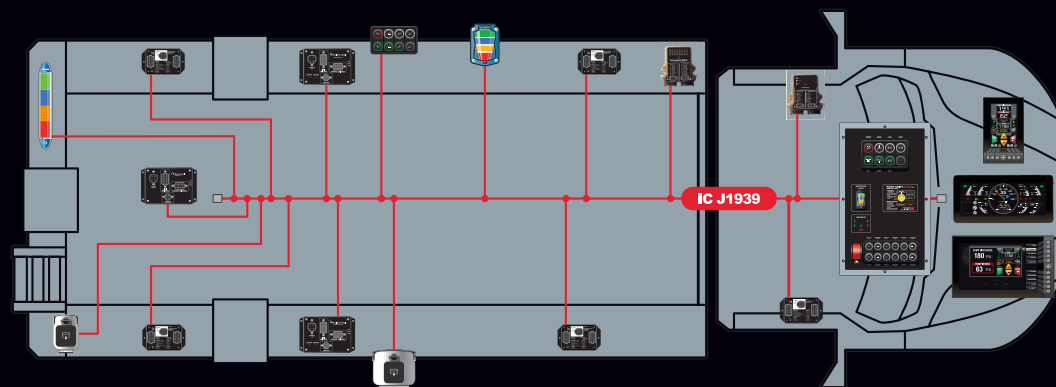
Touchscreen Controls & Multiplexing Systems

INNOVATIVE CONTROLS PROVIDES THE MOST ROBUST, RELIABLE AND EASY-TO-USE ELECTRONIC CONTROL SOLUTIONS TO THE FIRE SERVICE INDUSTRY

Our electrical and software engineers partner with in-house industrial designers to create turnkey systems for apparatus manufacturers that feature reliable and intuitive graphic control touchscreens, as well as an extensive line of CAN BUS I/O modules and networks.

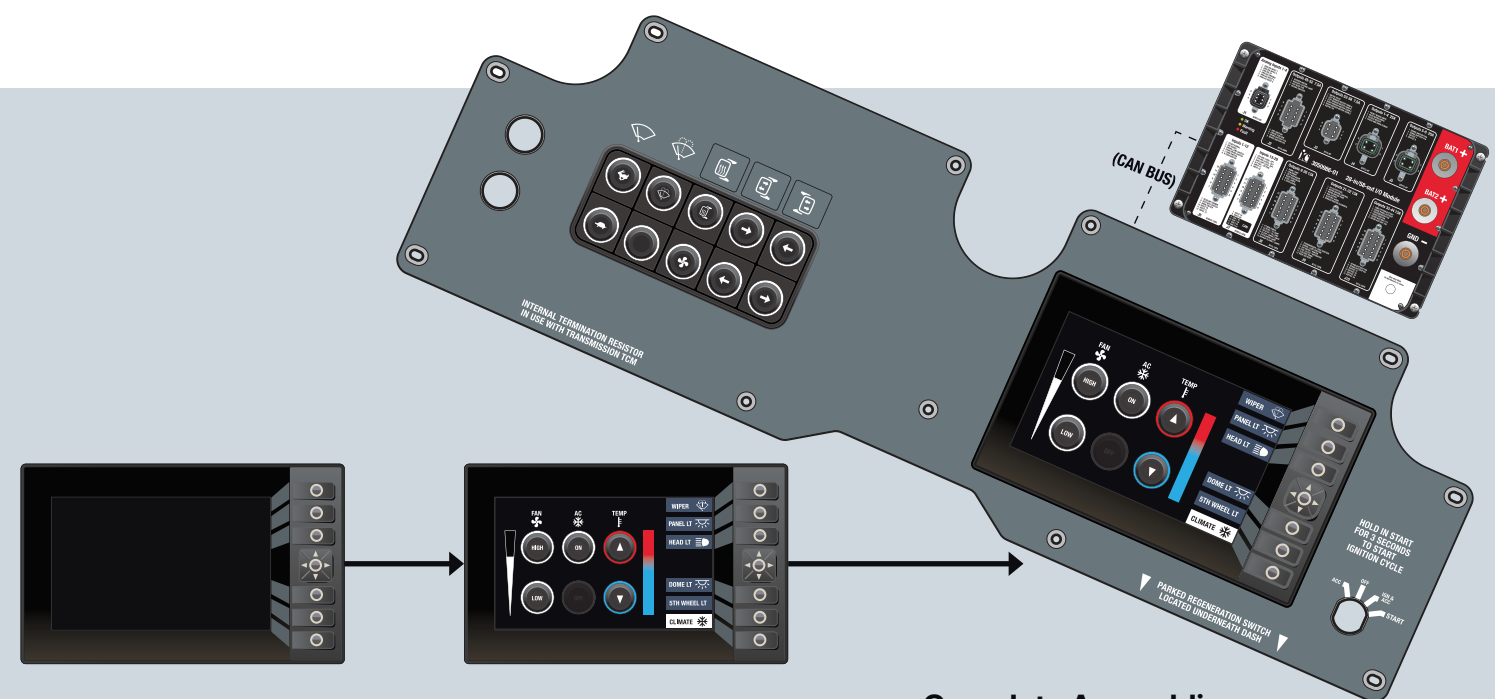
We offer touchscreen controls in a variety of sizes - all have been laboratory tested and field-proven to be sunlight-readable, waterproof; shock, vibration, salt spray and damage-resistant; and operable at -35 C to 65 C.

Our controls can be fully-customized or adapted to complete multiplexing systems, dash instrumentation, dump valve controls, governors, discharge and intake controls, aerial controls, and much more.



J1939 CAN BUS SYSTEMS

view pages 8-9 for full system schematic



HMI Touchscreens

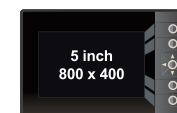
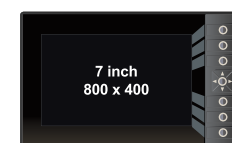
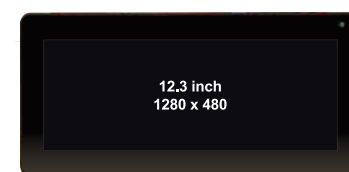
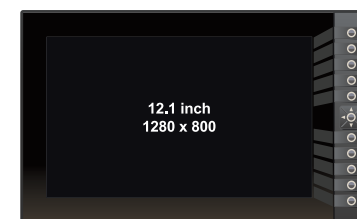
IC represents and currently utilizes a brand of programmable touchscreen controls (IFM) in a variety of sizes and capabilities, but is capable of programming any number of other HMI Touchscreen / PLC brands.

Graphic Design and Software Programming

Innovative Controls employs in-house graphic design and software engineering talent to produce functional, easy-to-use and attractive HMI screen designs.

Complete Assemblies with Networking

IC has the design and manufacturing capabilities necessary to produce and deliver integrated drop-in product solutions that include electronics, panels, enclosures, I/O modules & wiring.



- 800 to 1000 nits brightness with 1000:1 contrast ratio
- 64 bit multi-core processor technology
- Programmable with CODESYS running on Embedded Linux 4.14
- Touch screen and mechanical button options
- 8 to 32VDC operating power
- 2 or 4 CAN interfaces, USB and Ethernet interfaces
- Video and audio interfaces
- Diecast aluminum powder-coated enclosure
- -35C to 65C operating temperature
- IP67 ingress protection
- EMC Approvals:
 - UN/ECE-R10 Noise emission and noise interference 100V/m
 - DIN EN 61000-6-2 ESD
 - DIN EN 61000-6-4 Burst
 - ISO 7637-2 pulse
- Continuous shock resistance ISO 16750-3 30 g 6 ms / 24000 shocks
- Fast temperature changes EN 60068-2-30 and EN 60068-2-78
- Vibration resistance ISO 16750-3 Test VII and EN 60068-2-6 Sinus
- Salt spray test EN 60068-2-52
- MTTF 37 to 45 years
- Display LED lifetime > 70000 h





- Soft-Glo diffused lens eliminates hot spots
- 4-Level Display
- Accurate Calibrations for any tank shape
- 180 degree view angle
- Multiple user-selectable color schemes
- Highly accurate and reliable pressure sensor
- Automatic dimming or fixed brightness levels
- Available in multiple color icon and bezel options
- Adjustable alarm or auto tank-fill control output
- J1939 CAN-based communication
- -40c to +85c (-40f to +185f) operating temperatures
- Protection against reverse power polarity
- 12VDC or 24VDC operation

Calibration of Tank Shape

Main display can be calibrated to accurately measure the volume of rectangular, t-shaped, or elliptical shaped tanks. Nonstandard shaped tanks can be calibrated with either the 4-point or constant-fill methods to provide the highest accuracy possible.

The calibration mode is enabled by the installer with a magnet

J1939 Compatible CAN Communication Link

The Soft-Glo system displays interface using J1939 CAN based communication to simplify installation. The Soft-Glo displays can operate with their own dedicated CAN network or on a shared J1939 network. The Soft-Glo system communication format can handle up to four main displays measuring different tank levels on a single J1939 network.

multiple colored bezel options



multiple user-selectable color schemes

Configuration

Main display is configured by the installer using a magnet. Two Magnetic sensors are used to navigate the user interface to configure the following parameters:



- Tank level Calibration
- Tank Shape
- Display Color Scheme
- Display Brightness
- Tank Number
- Alarm Output Polarity
- Alarm Output Tank level



SOFT-GLO

Tank Level Monitors

Soft-Glo utilizes IC's highly reliable pressure transducer to accurately measure tank volume and deliver tank level information to the viewer in a revolutionary way.

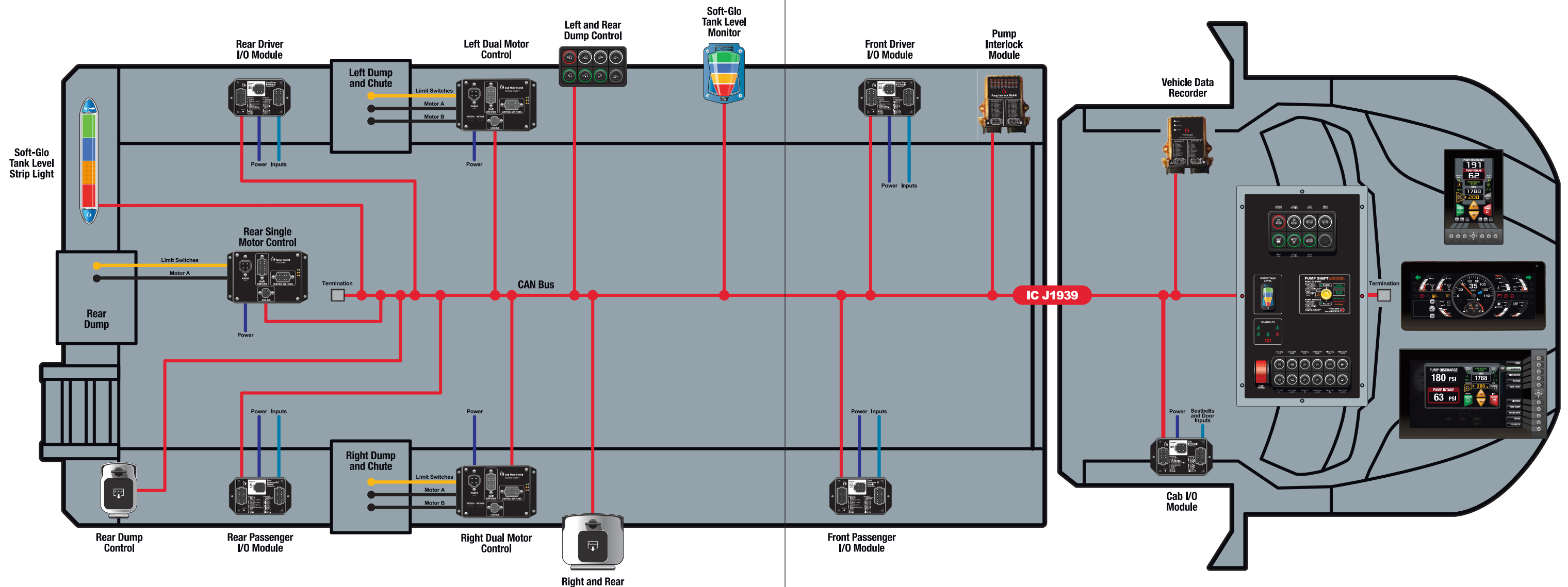
The display modules are divided into four distinct sections that show the volume of Water or Class A Foam or Class B Foam in the tank using multi-color RGB superbright LEDs. Tank level indication is enhanced by a 180° wide-angle diffusion lens in front of the LEDs. The LEDs are diffused by a proprietary method that creates an illumination effect that remains bright and visible in sunlight but eliminates the typical irritation to an operator's eyes traditionally caused by bright LEDs at night.

Soft-Glo displays are available in various sizes and treatments: pump panel main displays, in-cab mini displays and mini monster strip lights. Each display is available in multiple color, icon and bezel options designed to designate the display as either a Water, Foam A, Foam B, or Generic Foam display.

THE NEXT GENERATION

IN A LONG LINE OF RELIABLE IC SYSTEMS





J1939 CAN BUS SYSTEMS

At Innovative Controls, it is our goal to provide easy-to-use solutions for complex problems. Nearly all our latest products feature a J1939-ready CAN link to facilitate this for our customers.

Our design approach for networked systems leverages the J1939 CAN Bus protocol and distributed hardware for the benefit of minimizing wiring efforts on emergency vehicle production floors. In this way, we seek to provide a major cost-savings right out of the box.

We offer many general purpose, high-current I/O modules, in addition to our application-specific modules such as: dual motor controls for dump valve systems, fluid level monitoring systems, and pump interlock modules to ensure safe pump shifting operation.

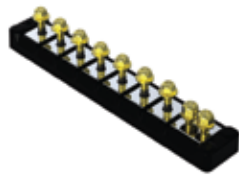
We offer several HMI control options, whether people are interested in state-of-the-art touchscreen displays or simpler tactile controls which maintain a sleek design at a more affordable price. With either solution, our system offerings feature multiple CAN links that can function independently from – or even provide a bridge to and from – the vehicle network. right out of the box.

There are few limits to the types of our modules that can be applied on a dedicated CAN link. Systems need only be as complex as the end-user desires. Though if things change, or additional subsystems are required, we offer expandability through collaboration – we will work with customers to add additional elements as needed. Whether this is done by repurposing another instance of the versatile hardware you see here or by designing new custom hardware – our vertically-integrated structure gives us the means to deliver.





Digital Speedometer
3051047



7 Stud Bus Bar
3051006



Door Ajar
Monitor System
view website for PN's



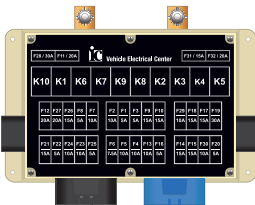
Seat Belt
Monitor System
view website for PN's



Transmission
Relay Control
3050965



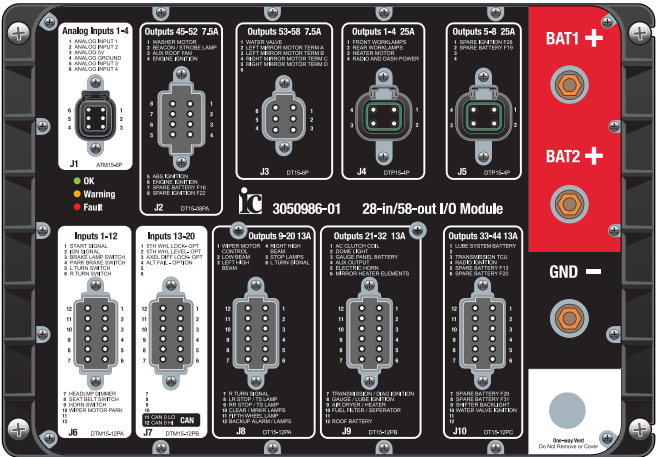
Windshield Wiper
Control Modules
view website for PN's



Vehicle Electrical
Center (VEC Module)



Dump Chute
Control Modules
view website for PN's



28-in/58-out I/O Module 3050986



Electrical
Load Managers
3050349



Gauge Heater
3050766



Pump Overheat
3050803



DC Motor Controls
3050362



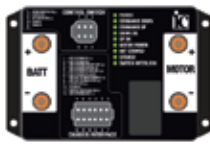
AC Controlled
Power Switch Module
3050830



GPS to J1939
CAN Gateway
3050797



Scene Light
Controllers
3050430



Ladder Lift
Control Systems
view website for PN's



Pump Shifts
3050509



Power Distribution
Relay Boards
305035X



Switch Bezel
Assemblies
view website for PN's



12-in 8-out
I/O Module
3050772



Pushbutton Control

ENCLOSURES

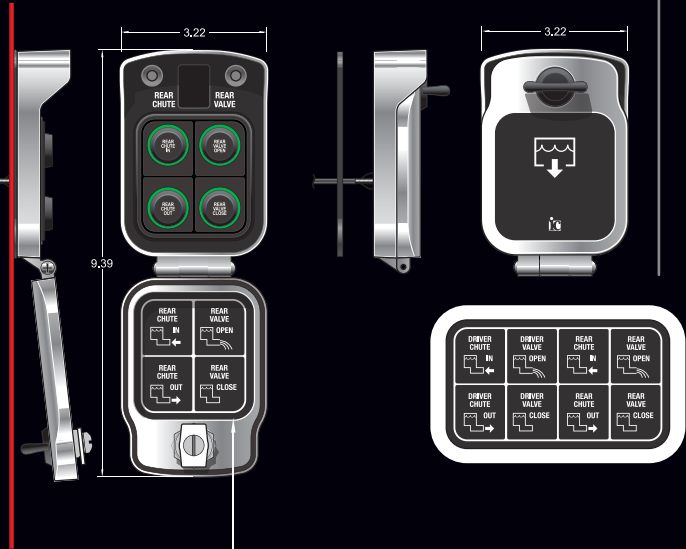
IC Pushbutton Control Enclosures are designed to protect our waterproof switchbanks from accidental operation, dirt, debris and ice buildup. Available in two sizes, these enclosures are a perfect fit for any externally mounted switches, including dump controls, light switches and rack controls.

The enclosures feature a rugged ¼-turn pawl latch and hinge, and large areas of external and internal customizable label space for switch identification. Available in Chrome or Black.

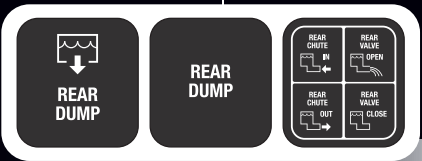
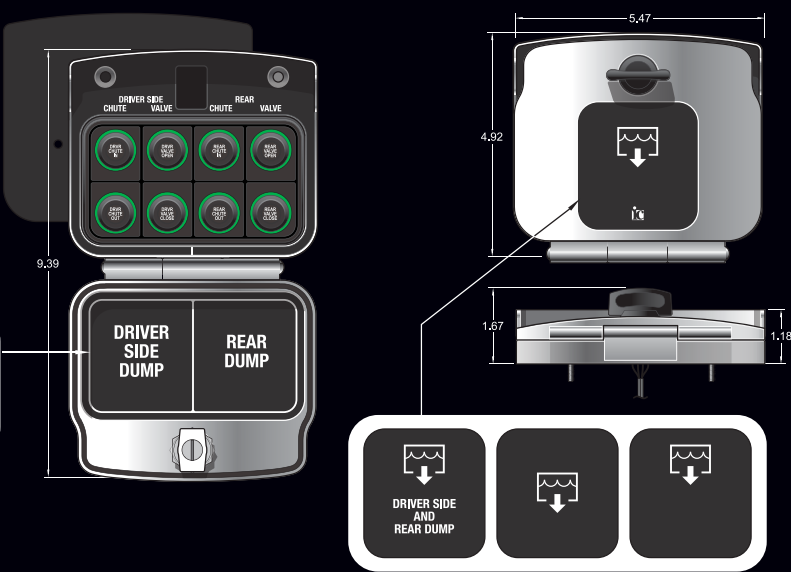


Want to Learn More?
Scan the QR Code

4-Button Control Module



8-Button Control Module



Available Soon
Chrome or Black finish



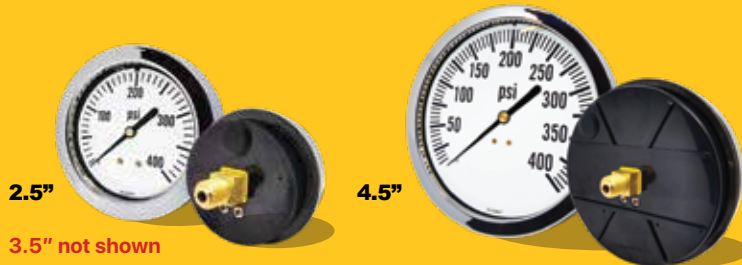
Why you should make the switch to TC

- Reliable liquid fill expansion compensation diaphragm
- Maintains accuracy in extreme environments
- Fully-filled: No visible bubble
- KEM-X Socket Saver gauge freeze-up protection
- Corrosion-free glass-filled Nylon 66 case
- Backlighting Option available in multiple colors
- Available in all common fire service industry sizes



Legacy “True” TC Gauges

- Available in 3 sizes: 2.5", 3.5" & 4.5"
- Legacy Gauge Dial Graphics
- Numerous PSI Ranges available
- Fully-filled: No visible bubble
- KEM-X Socket Saver gauge freeze-up protection



Specifications.	▼	▼	▼	▼	▼	
Sizes (dial diameters)	63mm	2.50in.	3.50in.	100mm	4.50in.	6.00in.
Panel Hole Sizes	2.50in.	2.69in.	3.78in.	4.00in.	4.85	6.35in.
Accuracy (full scale)	+/- 1.5 %	+/- 1.5 %	+/- 1.5 %	+/- 1 %	+/- 1 %	+/- 1 %
Backlighting Option	Yes	Yes	Yes	Yes	Yes	No
Case Design	Glass-filled Nylon 66 (6 inch gauge is stainless steel) Scratch-resistant molded polycarbonate lens with O-ring seal Chrome plated ABS decorative front bezel Two-sided adhesive gasket applied to the back of the flange of the gauge Includes a removable, see-through label to prevent scratching of the gauge face.					
Operating Pressure	Withstands pressures up to 100psi over gauge range Complies with all NFPA and ASME gauge tolerances and specs. after over-pressurization.					
Operating Temperatures	-40 degrees to 185 degrees Fahrenheit					
Freeze-up Prevention	Gauges are protected from water freezing inside the bourdon tube by means of a KEM-X Socket Saver diaphragm seal device that prevents the media from entry and entrapment in the tube.					
Compliances	NFPA 1901, 2016 edition, section #16.12.2 ASME section B40.100 accuracy ASTM B117 salt spray corrosion resistance IP code IP69K moisture dust ingress					
Termination Fitting	¼" NPT					
Mounting	Stainless steel rear mounting brackets					
Dial Markings	All gauge dial markings comply with UL 969 standards for marking and labeling systems as well as ASTM standard D4587 for Automobile Coatings for UV and exposure ratings.					
Pointer	Adheres to ASTM standard D4587 for Automobile Coatings for UV and exposure ratings.					



▼ Traditional Innovative Controls Sizes
▼ New Innovative Controls Sizes



TC Pressure Gauges

The Innovative Controls TC Series Pressure Gauges are **TEMPERATURE COMPENSATING GAUGES AVAILABLE IN ALL INDUSTRY SIZES.**

The Innovative Controls TC Pressure Gauges have been designed to solve all of the most common problems related to fire apparatus applications. These include high temperature gauge fill expansion, low temperature gauge freeze-up, and accuracy issues related to use in extreme enviroments. These gauges feature an over-sized internal breathing diaphragm inside the case that compensates for liquid fill expansion caused by high temperatures - preventing plug failure and preserving gauge accuracy.

Standard IC Size TC Pressure Gauge Options





iC Folding Steps

PART # -XX-X-X-X-X-X

- Customer No. (Logo No.)
- 0 No light logo
- 1 Backlit logo
- 0 Flying Leads
- 1 Two Pin Deutsch Connector
- 0 No Safety Label
- 1 Safety Label Installed

- Standard Light Module Colors for Step and Down Lights:
- 0 No Light
 - 1 White
 - 2 Red
 - 3 Blue
 - 4 Amber
 - 5 Green



Strong. Durable. Reliable.



SIDE MOUNT VALVE CONTROLS

Plumbing Products



Squeeze-Lock



Twist-Lock



Drain Valves



Master Pressure Center



Test Port Manifolds

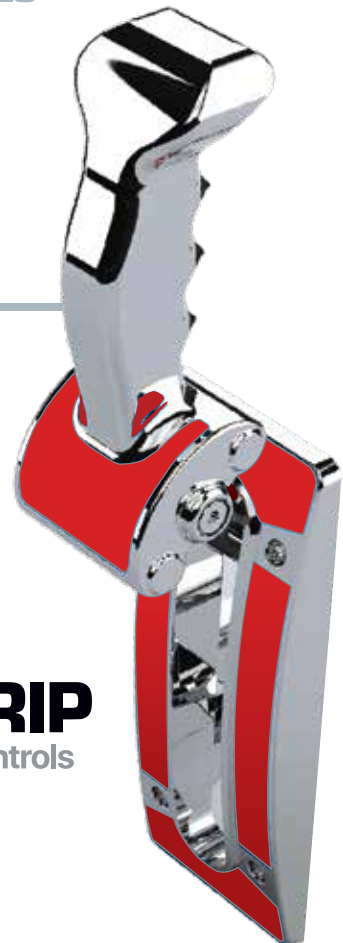


Cable Linkages



Rod Linkages

PISTOL GRIP Pivot-Lock Valve Controls



Product Identification



Verbiage Bezels



FAMA Safety Labels



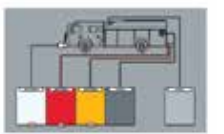
Laser Data Tags



Message Labels



Garnish Rings



Diagrammatic Panels

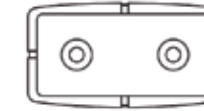
iC Labels & Bezels



Scratch Resistant
Graphics are printed on underside of polycarbonate sheet.



Permanent Adhesive
Our labels and optional bezels are adhered using outdoor rated, UL approved adhesive.



Optional Bezels
We offer standard size labels with chrome-plated decorative bezels.



UV Protected Polycarbonate
Polycarbonate overlay is designed for long-term outdoor ultra-violet protection against fading.