



Aerospace Group  
Conveyance Systems Division  
Carter® Brand Ground Fueling Equipment

**IN64108**

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Applicable additional manuals:

IN64035 INSTALLATION INSTRUCTION

## **Installation Instruction**

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### **Transducer/Cable Assembly**

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#### **Model 64108**

NOTE: OEM/CUSTOMER - PLEASE FILL OUT AND MAIL IN THE REGISTRATION CARD PROVIDED WITH THE INSTALLATION INSTRUCTIONS, IN64035. SEE THAT INSTRUCTION MANUAL FOR FURTHER INSTRUCTIONS.

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## 1.0 SCOPE

These installation instructions have been developed for use in mounting Model 64108 Transducer/Cable Assembly on any refueling vehicle. These instructions do not cover all requirements for such an installation which might be dictated by other authorities which have jurisdiction over the use of your vehicle. The responsibility for proper final installation configuration is yours. Consult with the local airport authority or corporate authority for further information.

## 2.0 EQUIPMENT SUPPLIED BY CUSTOMER

The following is a listing of the required equipment supplied by the customer on the refueling vehicle. The Digital Valve system needs to interface with all of the items below:

A manual valve to isolate the transducer from fuel pressure. The preferred configuration uses a manual 2 position 3-way valve installed such that one position of the valve will connect the transducer to the pressure source and the other will shut off the pressure source and connect the transducer to a vent line plumbed to a slop tank.

## 3.0 GENERAL DESCRIPTION

The 64108 Transducer/Cable Assembly is an electronic pressure sensor which sends a signal to the 64035 Digital Control Module. It is mounted on the piping on the refueling vehicle to sense the local fuel pressure within the refueling vehicle. It is electrically connected to the 64035 Digital Control Module through the cable which is included in the 64108. The Pressure Transducer/Cable Assembly signal is used, in conjunction with the signal from the customer supplied meter pulser, to calculate and maintain the delivery pressure at the aircraft.

## 4.0 INSTALLATION

4.1 The 64108 Pressure Transducer/Cable Assembly must be installed on the piping system of the refueling vehicle at a location as far downstream as is practicable, as close to the aircraft as possible. However, it must be located in such a way as to be in contact with a reliable pressure source. This means that the transducer must be located;

- In a run of straight pipe.
- Not immediately before some other piping element such as an elbow or tee.
- Never in a piping element such as an elbow or a tee.
- Far enough downstream of a piping element such as an elbow or a tee such that turbulence has a chance to relax.

A compromise must be reached to satisfy both the need to locate the transducer as far downstream as possible, yet to mount it at a quality pressure sensing piping location.

4.2 The instrument cable, attached to the transducer with a removable connector, must be routed to the 64035 Digital Control Module in such a way as to avoid being in close proximity with other power lines. Running this cable along side other cables and wires which carry significant amounts of current, such as the cables to the solenoid valves on the pressure control valves/coupler, can cause distortion of the pressure signal which, in turn, will negatively effect the performance of the Digital Valve system. This cable can cross other lines but should not be run along side other lines as much as possible.

4.3 Wire assignments:

Wire Color	Assignment/Function
Red	Power to the transducer
White	Signal from the transducer
Black	Circuit ground
Bare	Shield wire - to be connected to vehicle frame

These wires must be connected to the terminal strips inside the 64035 Digital Control Module.

- 4.4 The connector on the top of the transducer can be removed for ease of installation. The inner black portion of the connector, to which the cable is soldered, can be pulled out of the gray housing, turned to accommodate mounting requirements, and re-inserted into the gray housing at one of four possible so that the connector can point in one of four directions. EXERCISE CAUTION WHEN PERFORMING THIS CHANGE AS THE SOLDER JOINTS FOR THE CABLE ARE FRAGILE.
- 4.5 It has been demonstrated on some installations that the seal nut of the connector, through which the cable passes, can be removed and a conduit or tubing fitting utilized to facilitate a sheath or cover for the cable.
- 4.6 Each transducer installed on a refueling vehicle should be mounted with a shut-off valve underneath it, between it and the fluid pressure source. This valve will be used to "block out" the Digital Valve so that it will not regulate. This procedure is described in the Set-Up and Calibration instructions for the 64035, Digital Pressure Control Module, SU64035. The preferred configuration uses a manual 2 position 3-way valve installed such that one position of the valve will connect the transducer to the pressure source and the other will shut off the pressure source and connect the transducer to a vent line plumbed to a slop tank. REMOVE, OR OTHERWISE DISABLE, THE HANDLE ON THIS VALVE SO THAT ONLY AUTHORIZED PERSONNEL CAN CHANGE THE POSITION OF THIS VALVE.

Aerospace Group  
Conveyance Systems Division  
9650 Jeronimo Rd  
Irvine, CA 92618  
Ph (949) 452-9500  
Fax (949) 452-9992



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