



160 __ T90 __ Series

Write purchase model number here for future reference

Electronic Washdown Urinal

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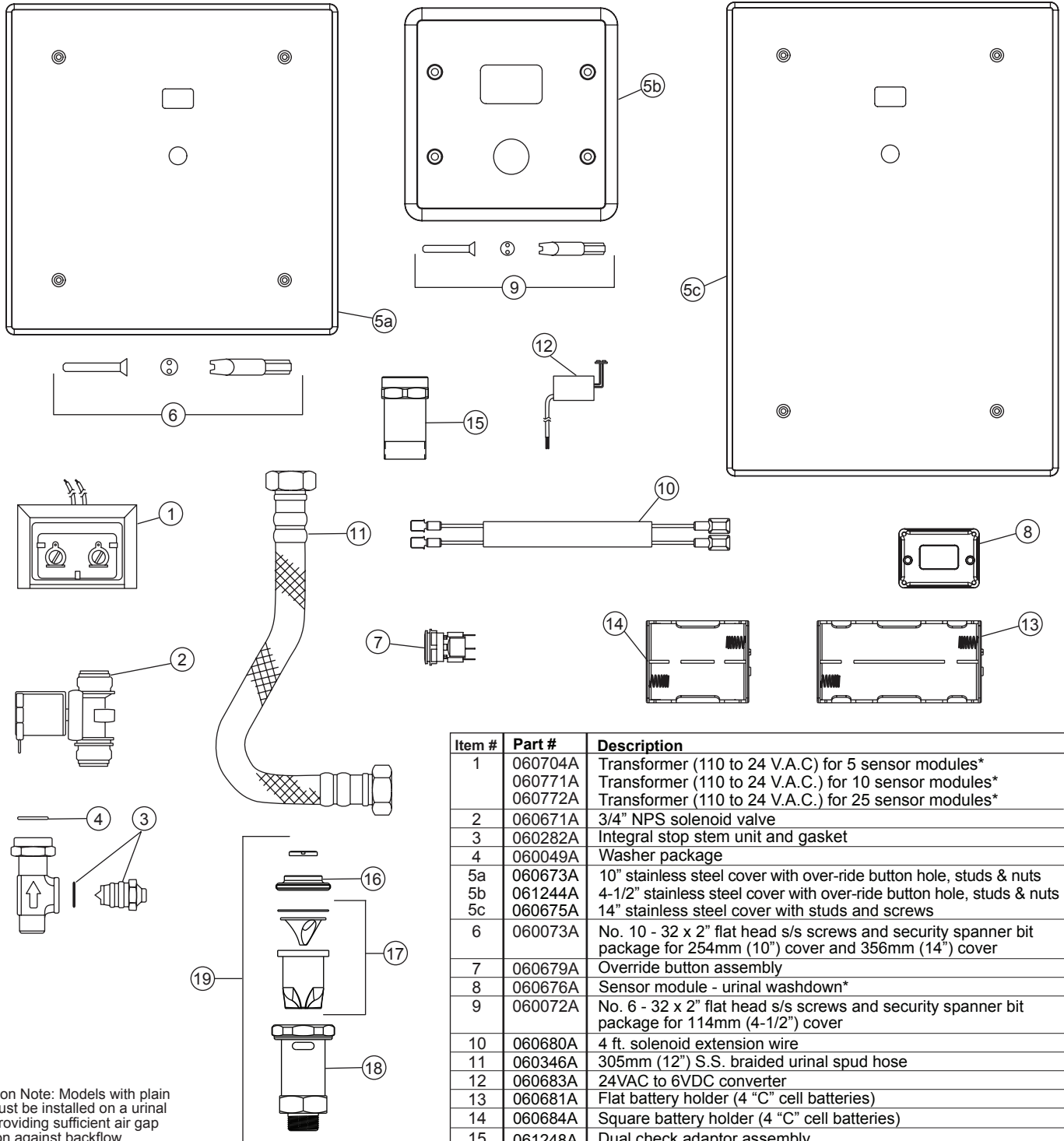
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Installation Note: Models with plain outlet must be installed on a urinal fixture providing sufficient air gap protection against backflow.

PLEASE LEAVE this sheet with the owner, maintenance plumber, etc. as items relating to ongoing maintenance suggestions and procedures are included.

Item #	Part #	Description
1	060704A 060771A 060772A	Transformer (110 to 24 V.A.C) for 5 sensor modules* Transformer (110 to 24 V.A.C.) for 10 sensor modules* Transformer (110 to 24 V.A.C.) for 25 sensor modules*
2	060671A	3/4" NPS solenoid valve
3	060282A	Integral stop stem unit and gasket
4	060049A	Washer package
5a	060673A	10" stainless steel cover with over-ride button hole, studs & nuts
5b	061244A	4-1/2" stainless steel cover with over-ride button hole, studs & nuts
5c	060675A	14" stainless steel cover with studs and screws
6	060073A	No. 10 - 32 x 2" flat head s/s screws and security spanner bit package for 254mm (10") cover and 356mm (14") cover
7	060679A	Override button assembly
8	060676A	Sensor module - urinal washdown*
9	060072A	No. 6 - 32 x 2" flat head s/s screws and security spanner bit package for 114mm (4-1/2") cover
10	060680A	4 ft. solenoid extension wire
11	060346A	305mm (12") S.S. braided urinal spud hose
12	060683A	24VAC to 6VDC converter
13	060681A	Flat battery holder (4 "C" cell batteries)
14	060684A	Square battery holder (4 "C" cell batteries)
15	061248A	Dual check adaptor assembly
16	060513A	VB adaptor
17	060785A	VB sleeve complete
18	061249A	VB adaptor assembly
19	061250A	VB assembly

* Each individual sensor module requires its own 24VAC to 6VDC hardwire converter (see item #12).

ELECTRONIC WASHDOWN URINAL INSTRUCTIONS

STEP 1 – ROUGH IN

4" Sensor Plate Models

If Hardwire Operated

- 102mm (4") box is supplied, remove suitable knockouts and insert cable bushing as per Fig. 1A.
- Rough in box for sensor location as per Fig. 1B on centreline of fixture. **Note:** Solenoid extension cord supplied with the trim is 1220mm (48") long.
- Securely attach box to wall structure.
- Install and attach valve to water supply as per Fig. 1B.
- Install CSA and/or UL approved Class 2 transformer or equivalent in a convenient location or in a pipe chase. **(DO NOT install the transformer inside the control box.)**
- Run suitable wire from 24VAC power source into box. Use wire which complies with local electrical codes for 1 amp load No. 18 cable is usually sufficient.
- Attach supplied plasterguard as per Fig. 1B to ensure sensor mounting holes are positioned correctly.

4" Sensor Plate Models

If Battery Operated

- 102mm (4") box and 4" box extension is supplied. Remove suitable knock-out as per Fig. 1A.
- Attach box extension to front of the box.
- Rough in box assembly for sensor location as per Fig. 1B on centreline of fixture. **Note:** Solenoid extension cord supplied with the trim is 1220mm (48") long.
- Securely attach box to wall structure.
- Install valve box and attach valve to water supply as per Fig. 1B.
- Attach supplied plasterguard as per Fig. 1B to ensure sensor mounting holes are positioned correctly.

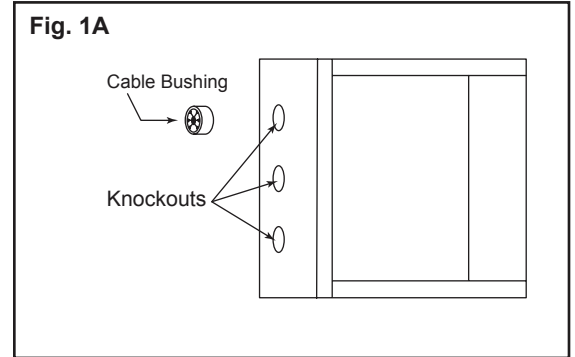
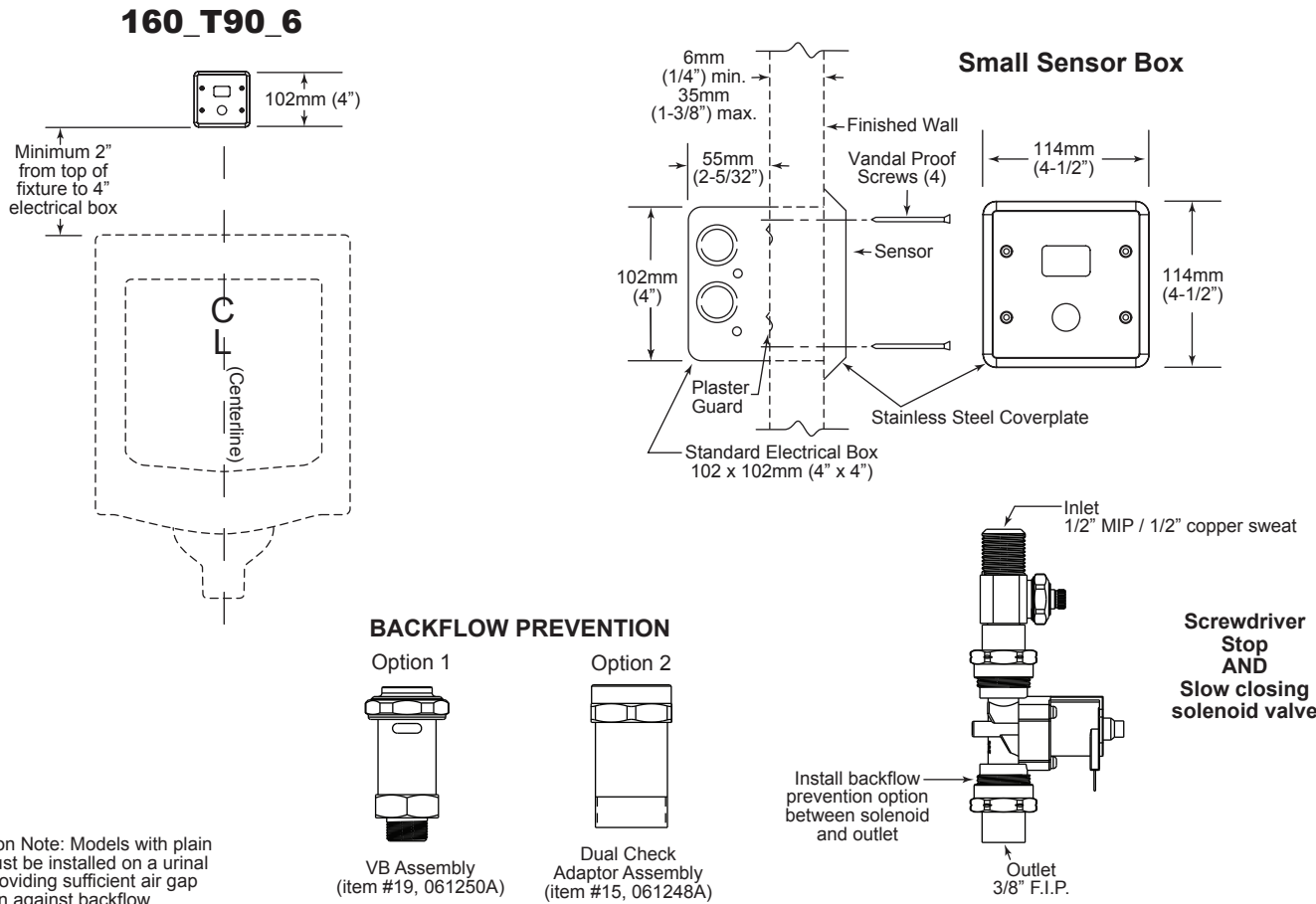


Fig. 1B



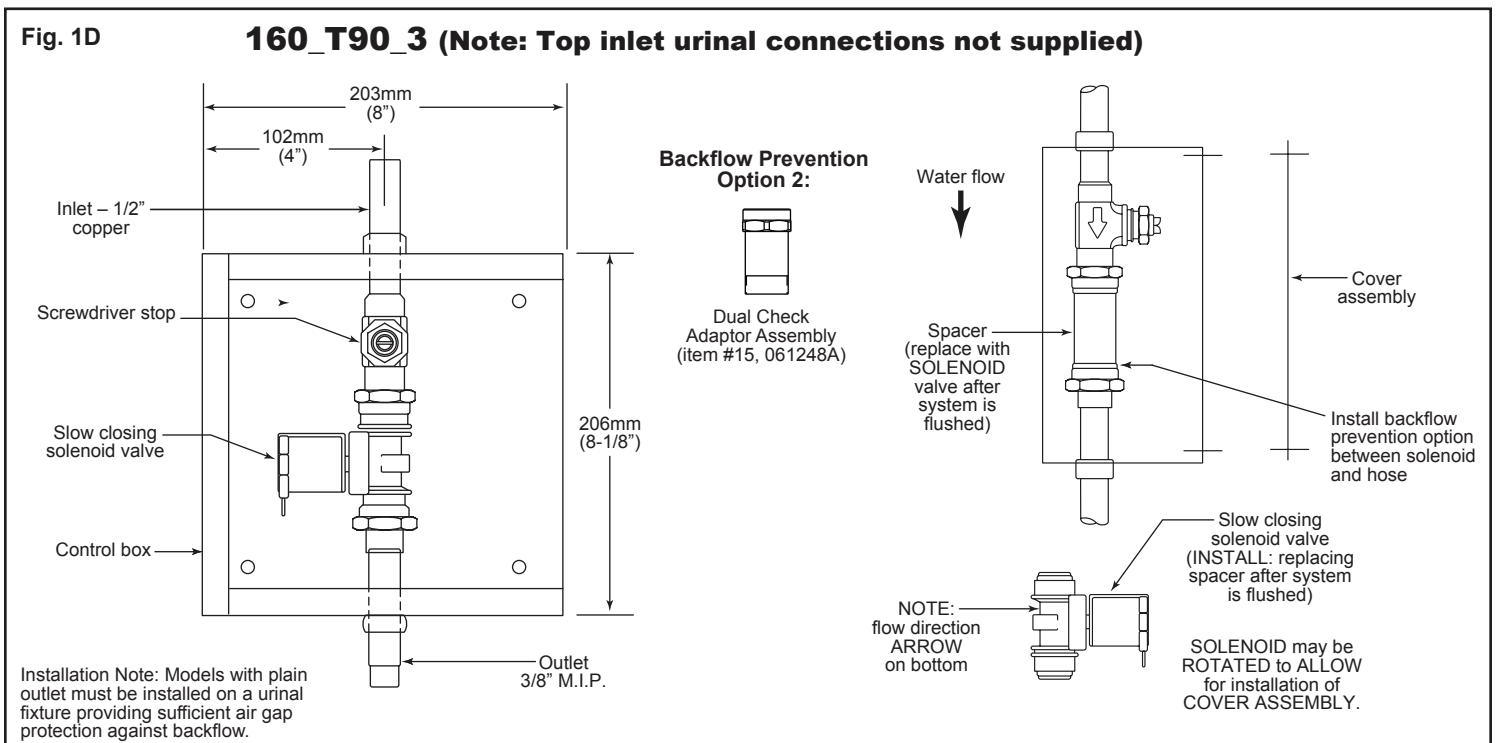
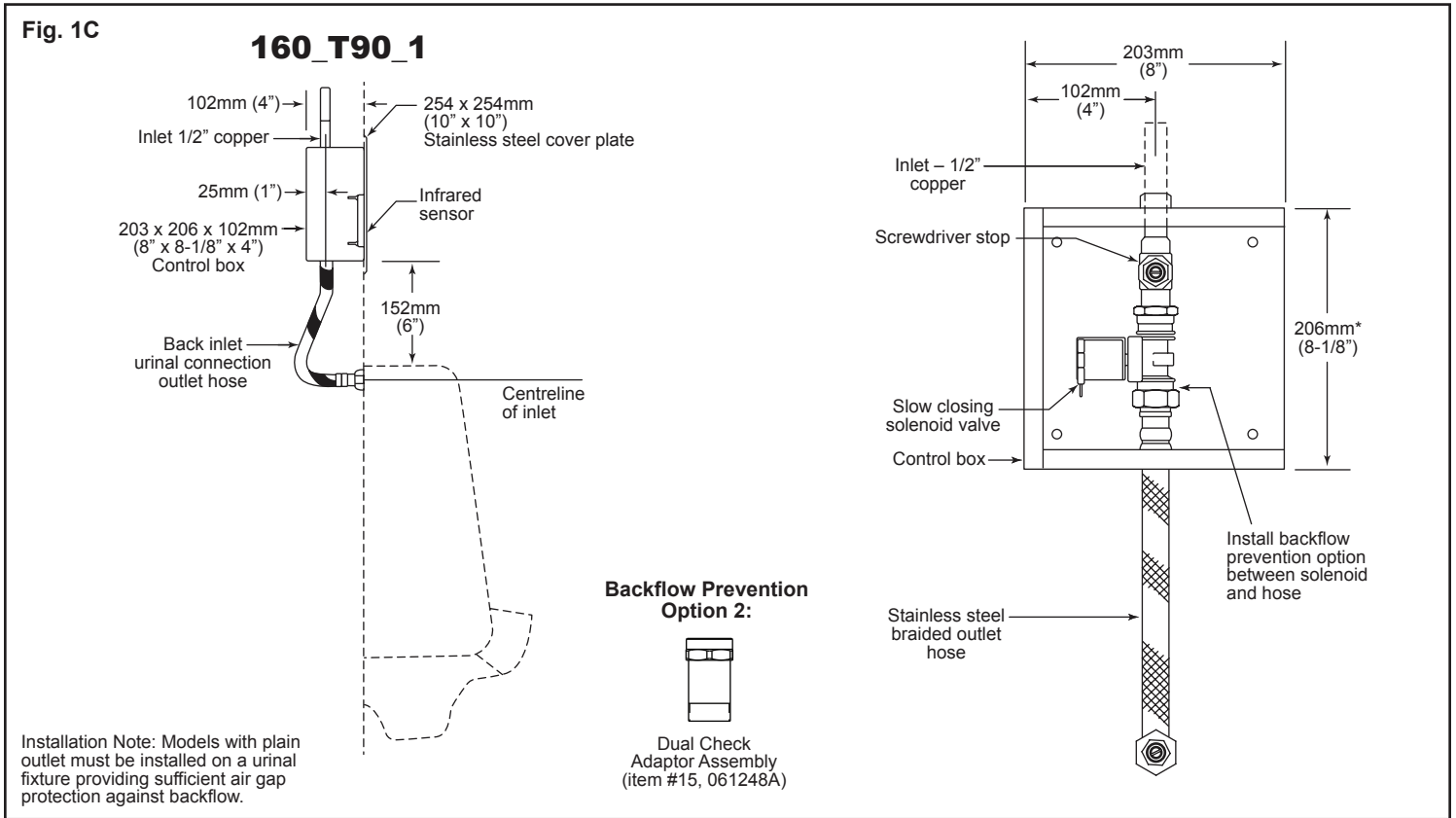
Installation Note: Models with plain outlet must be installed on a urinal fixture providing sufficient air gap protection against backflow.

ELECTRONIC WASHDOWN URINAL INSTRUCTIONS

STEP 1 – ROUGH IN (CONTINUED)

10" Sensor Plate Models

- 8" box is supplied. Rough in box flush to the wall, so the valve will be positioned as shown per Fig. 1C on centreline of fixture.
- Securely attach box to wall structure.

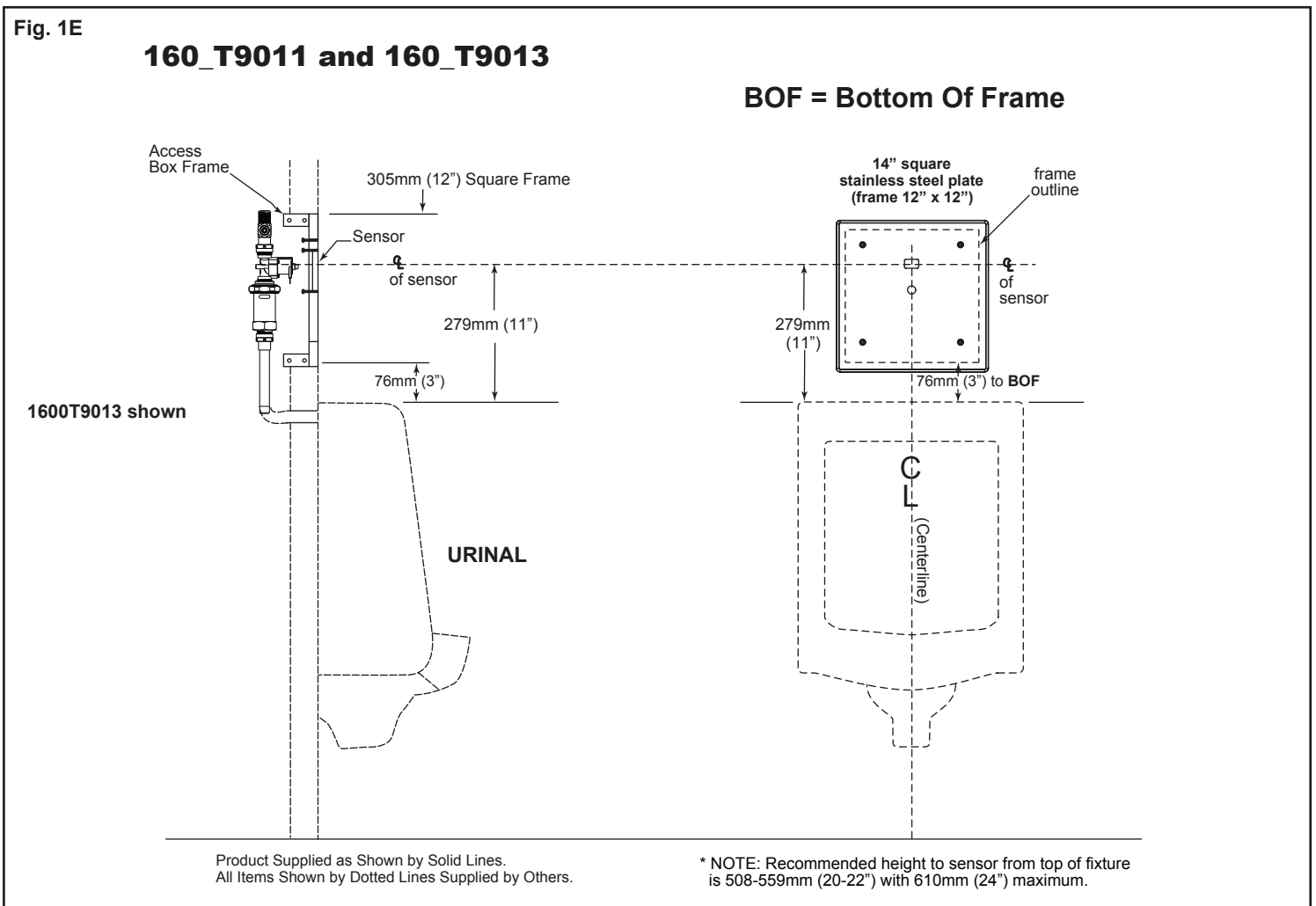


ELECTRONIC WASHDOWN URINAL INSTRUCTIONS

STEP 1 – ROUGH IN (CONTINUED)

14" Sensor Plate Models (Backflow Prevention Option 1: VB Assembly)

- 12" frame is supplied. Rough in frame so the solenoid valve will be positioned as shown in Fig. 1E.
- Securely attach frame to wall structure.



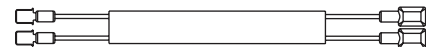
STEP 2 – INSTALL SENSOR PLATE

If Hardwire Operated

- Attach hardwire converter supplied to the 24VAC power source using the wire nuts provided.
- Attach converter to the sensor module using the snap connector. With power to flushometer, there will be a sequence of red lights that strobe across the sensing lens window which signifies that the valve is now in operation mode.

Fig. 2A

Solenoid Extension Wire



Factory pre-set functions are: Wash-down urinal sensing distance of 20", 24 hour flush is off, no flush delay and flush volume is 1.9L (0.5 U.S. gallons).

Once in operation mode, if adjustments are preferred, see Step 3 to make adjustments.

- 4" Plate Models - Using the 1220mm (48") solenoid extension cord supplied, attach the male tabs to the sensor module and the female connectors to the solenoid valve. Make sure to correctly match the wire colours on the sensor module and on the solenoid. Red wire attaches to the positive (+) tab which is marked on the solenoid coil.
- 10" Plate Models - Connect the female connectors from the sensor module to the solenoid on the flush valve. Make sure to correctly match the wire colours on the sensor module to the solenoid. Red wire attaches to the positive (+) tab which is marked on the solenoid coil.
- If the factory default settings for the sensor are not suitable, refer to step 3 for sensor adjustments.
- Attach sensor plate to the box using the 4 vandal proof screws provided.

ELECTRONIC WASHDOWN URINAL INSTRUCTIONS

STEP 2 – INSTALL SENSOR PLATE

If Battery Operated

- Install 4 “C” cell batteries provided into the battery holder and attach the holder to the sensor module using the battery clip. Use the +/- on the battery holder for correct positioning. With power to flushometer, there will be a sequence of red lights that strobe across the sensing lens window which signifies that the valve is now in operation mode.

Factory pre-set functions are:

Wash-down urinal sensing distance of 20”, 24 hour flush is off, no flush delay and flush volume is 1.9L (0.5 U.S. gallons).

Once in operation mode, if adjustments are preferred, see Step 3 to make adjustments.

- 4” Plate Models - Using the 1220mm (48”) solenoid extension cord supplied, attach the male tabs to the sensor module and the female connectors to the solenoid valve. Make sure to correctly match the wire colours on the sensor module and on the solenoid. Red wire attaches to the positive (+) tab which is marked on the solenoid coil.
- 10” & 14” Plate Models - Connect the female connectors from the sensor module to the solenoid on the flush valve. Make sure to correctly match the wire colours on the sensor module to the solenoid. Red wire attaches to the positive (+) tab which is marked on the solenoid coil.
- If the factory default settings for the sensor are not suitable, refer to step 3 for sensor adjustments.
- 4” Plate Models - Install battery holder into the back of the box and attach the sensor plate to the box using the 4 vandal proof screws provided.
- 10” & 14” Plate Models - Attach battery holder with the 2 way tape provided, to a secure location on the wall framing, etc.

STEP 3 - MAKING ADJUSTMENTS (OPTIONAL)

(Optional: Only required if factory settings are not preferred)

- To move from operation mode into set-up mode: remove the plastic plug located in the rear of the sensor module and press the set-up mode button once. A pencil or small screwdriver may be required. Once done, place the plug back in the hole.

**Pre-set
sensing
distances
are:**

Wash-Down Urinal

1 light	12”
2 lights	16”
3 lights	20” (factory set)
4 lights	24”
5 lights	28”

3.1 Adjusting Sensing Distances:

- Sequences of red lights will intermittently strobe across the sensor window, followed by a number of red lights which stay on to indicate the current sensing distance.
- A pulsating blue light on the far left of the sensor window will indicate if an object is detected. However, the sensing distance could be set at a distance greater or shorter than the desired activating position.
- To ensure sensing distance is set to precise desired position, stand at desired activating distance.
- If the pulsating blue light is not present, press the override button (the red lights will increment).
- Continuing to press the override button will eventually loop the sensing distance back to 1 light (12” sensing distance).
- Press override button until pulsating blue light is present. The blue light indicates that the sensing distance has been adjusted to a position that is detecting you.
- The sensing distance for washdown urinals can be set between 12” and 28”.
- If all adjustments have been completed, press and hold down the manual override button for 5 seconds. This will advance the distance adjustment mode into the Flush Times adjustment mode.

3.2 Adjusting Flush Time/Volume:

- The blue light on the far left hand side of the sensor window will stay on, and 3 red lights will be present on the far right (factory set).
- To increment the flush time, press and release the override button once. The red lights will increment by one.
- A maximum of 5 lights may be obtained. Continuing to press the override button will eventually loop the flush time back to 1 light (4 second flush time).
- If all adjustments have been completed, press and hold down the manual override button for 5 seconds. This will advance the Flush Time adjustment mode into the 24 Hour Flush adjustment mode.

**Pre-set
flush
times
are:**

Wash-down Urinal Flush Times & Volume

1 light	4 seconds	1.9L
2 lights	3.6 seconds	1.7L
3 lights	3.2 seconds	1.5L
4 lights	7.8 seconds	3.6L
5 lights	7.5 seconds	3.45L

3.3 Adjusting 24 Hour Flush:

- When 3 red lights in the centre of the sensor window are on, 24 hour flush is on.
- When the red light in the middle of the 3 lights is off, the 24 hour flush is off.
- Press manual override button to toggle between on and off mode.
- If all adjustments have been completed, press and hold down the manual override button for 5 seconds until all lights go out.

FUNCTION AND TROUBLESHOOTING LIGHTS

BATTERY VERSION: NO LIGHTS-NO POWER

Check that the 4 "C" batteries are positioned properly in the battery holder. Use the +/- on the battery holder for correct positioning. If the batteries are positioned correctly but there are still no lights, replace with 4 new "C" Alkaline batteries.*

HARDWIRE VERSION: NO LIGHTS-NO POWER

Check that the 24VAC transformer has power on the incoming 120VAC side. (Transformer breaker is turned on.)

Check the connection of the flushometer wires to 24VAC transformer.

Check that the connection of the hardwire converter is made to the electronic board within the electronic flush valve housing.

For further technical assistance, call Delta Commercial Technical Service at 1-800-387-8277 (Canada) or 1-877-509-2680 (U.S.A.).

1. **Start-Up:** When batteries are first inserted, a sequence of red lights that strobe across the sensing lens window will signify that the valve is now in operation mode.
2. **Override Button in Operating Mode:** BLUE light flashes once when Override Button is activated. Should the manual override button stick, the program will continue to operate and will reset automatically if the override button is repaired or it returns to home position.
3. **Battery Level Indicator:** RED light flashes every 3 seconds, indicating approximately 5,000 flushes remain from when RED light first started flashing.
4. **Checking Battery Strength:** In operation mode, it is possible to check the strength of the batteries by holding down the override button until the RED lights begin to flash. The strength of the batteries is proportional to the number of lights that are displayed when the override button is held down. For example, 5 RED lights signify full battery strength; while 1 RED light indicates very weak battery strength (replace batteries when this occurs).

***Note: All original settings will be retained when batteries are changed. If you have made optional adjustments, your settings will be retained when batteries are changed.**

Delta Commercial Faucet Limited Warranty

All parts of the Delta® HDF® and TECK® faucets are warranted to the original consumer purchaser to be free from defects in material, finish and workmanship for a period of five (5) years unless otherwise specifically stated in the catalogue and price book. This warranty is made to the original consumer purchaser and shall be effective from date of purchase as shown on purchaser's receipt.

Delta will, at its option, repair or replace, FREE OF CHARGE, during the warranty period, any part which proves defective in material or workmanship under normal installation, use and water and service conditions. If Delta Faucet concludes that the returned part was manufactured by Delta Faucet and is, in fact, defective, then Delta Faucet will honour the warranty stated herein. Replacement parts can be obtained from your local dealer or distributor listed in the telephone directory or by returning the part along with the purchaser's receipt to our factory, TRANSPORTATION CHARGES PREPAID, at the address listed. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY MADE BY DELTA. ANY CLAIMS MADE UNDER THIS WARRANTY MUST BE MADE DURING THE FIVE YEAR PERIOD REFERRED TO ABOVE. ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. LABOUR CHARGES AND/OR DAMAGE INCURRED IN INSTALLATION, REPAIR OR REPLACEMENT AS WELL AS INCIDENTAL AND CONSEQUENTIAL, SPECIAL, INDIRECT OR PUNITIVE DAMAGES CONNECTED THEREWITH ARE EXCLUDED AND WILL NOT BE PAID BY DELTA FAUCET.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty is for commercial products only from Delta Faucet Company and Delta Faucet Canada (a division of Masco Canada Limited) and is void for any damage to this faucet due to misuse, abuse, neglect, accident, improper installation, any use in violation of instructions furnished by Delta Faucet or any use of replacement parts other than genuine Delta parts.

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning:

Changes or modifications not expressly approved by Delta could void the user's authority to operate the equipment.

CAN ICES-3 (A) / NMB-3(A)

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(317) 848-1812

For further technical assistance, call Delta Commercial Technical Service at 1-800-387-8277 (Canada) or 1-877-509-2680 (U.S.A.).

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