

# 744E SPRAYER CONTROL

## USER MANUAL



**TeeJet**<sup>®</sup>  
TECHNOLOGIES

A Subsidiary of  Spraying Systems Co.<sup>®</sup>

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## CHAPTER 1 - INTRODUCTION

The 744E Sprayer Control provides manual spray control in a compact package. The console features a lighted pressure gauge for night use and heavy-duty switches with LED indicators.

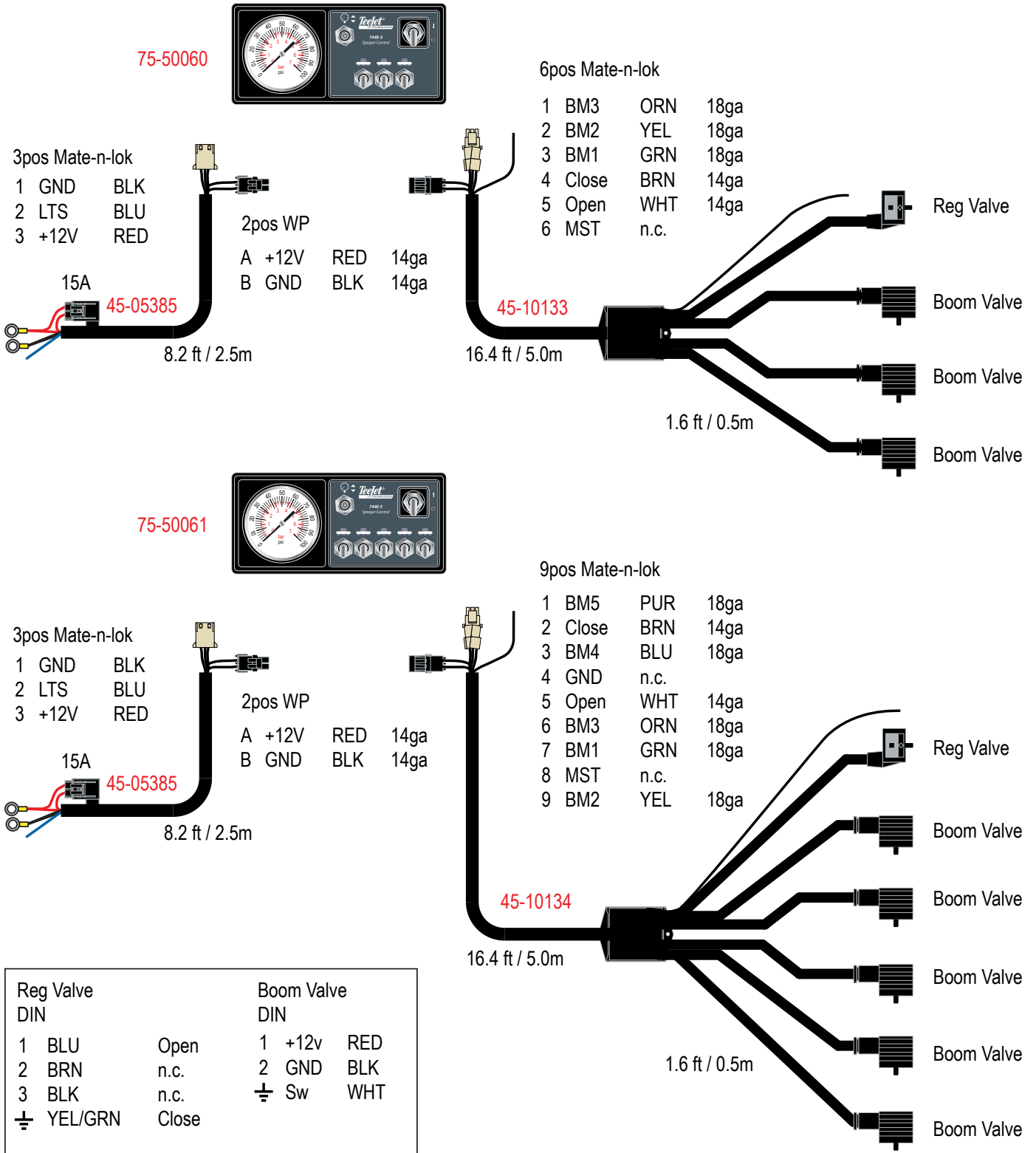
- Manual spray controller in a compact package.
- 3 or 5 sections control
- Liquid filled 100 PSI (7 bar) pressure gauge
- Lighted pressure gauge for night use
- Heavy-duty switches with LED indicators
- Available in a variety of kit forms using ball valve control manifolds
- Kits include wiring harness

Figure 1: 744E Sprayer Console



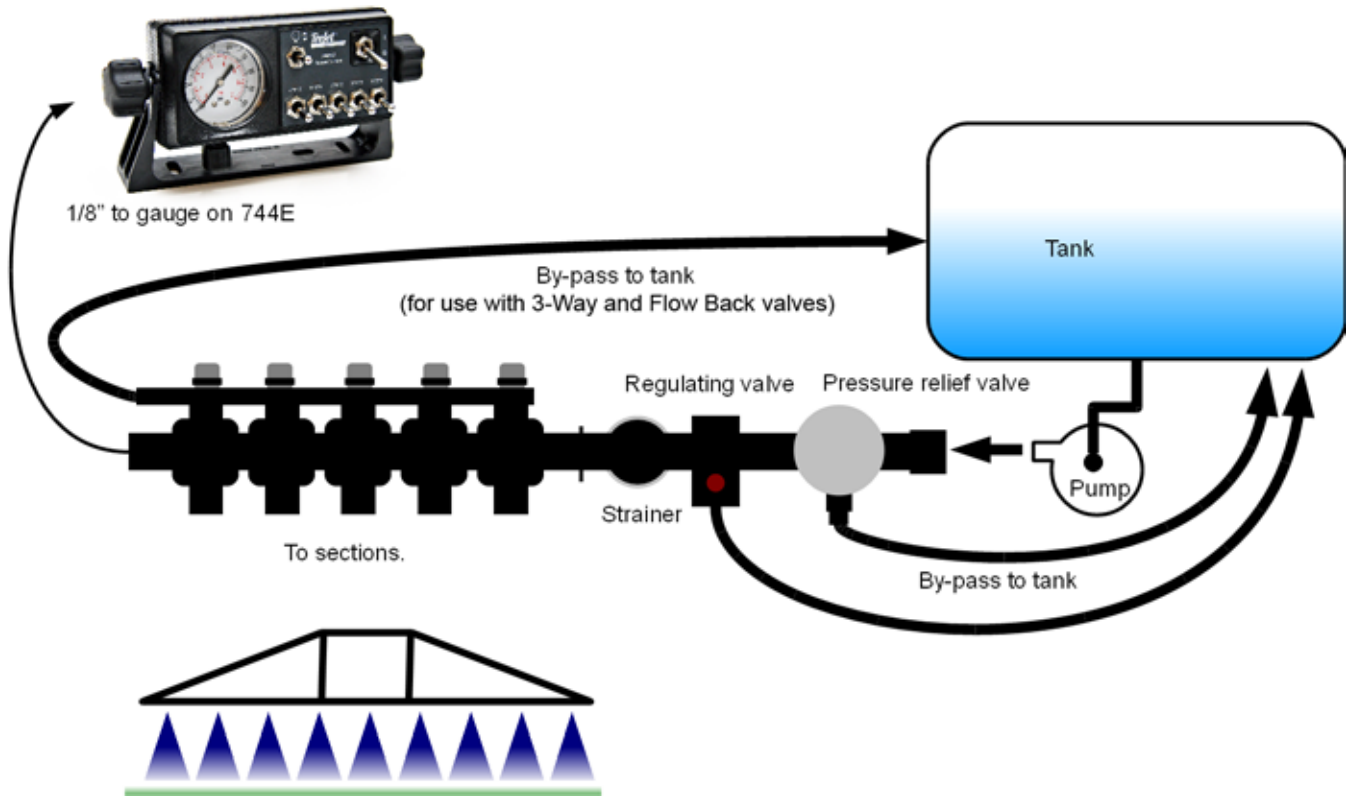
## System Configurations

Figure 2: 744E Sprayer Control: 3 and 5 Sections System Diagrams



## Plumbing Diagram

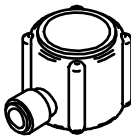


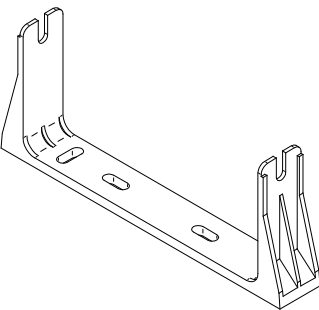
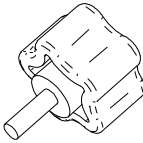

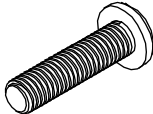
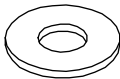




Figure 3: 744E Plumbing Diagram



## Kit Contents

Unpack the installation kit and identify the required parts.

Item	Part Number	Description	Quantity
A	64-50029	Elbow, Gauge .....	1
B	67-20002	Tubing Nut, Nylon .....	2
C	65-50005	Tubing Insert, Brass.....	4
D	64-50023	Mounting Bracket, Nylon.....	1
E	60-10026	Lock Knob .....	2
F	60-50000	1/4" External Tooth Lock Washer .....	2
G	60-50003	1" Bolt, Steel, Zinc Plated .....	2
H	60-50001	Flat Washer, Steel, Zinc Plated.....	2
I	60-50009	Lock Washer, Steel, Zinc Plated .....	2
J	350-0062	Hex Nut, Steel, Zinc Plated.....	2
K	67-01033	Fitting, 1/4" NPT Nipple .....	1
L	90-50251	Kit, Hardware, 744E - Items 1, 2, 3, 5 & 7-11 .....	1
M	75-50061	TeeJet 744E - 5 sections console, 100 PSI .....	1
	75-50060	TeeJet 744E - 3 sections console, 100 PSI .....	1
N	45-10133	Harness, TJ744E 3 Section, 7/2.1m .....	1
	45-10134	Harness, TJ744E 5 Section, 13/4m .....	1
O	98-70030	744E Manual.....	1

Item	Part No.	Description	Illustration
A	64-50029	Elbow, Gauge	
B	67-20002	Tubing Nut, Nylon	
C	65-50005	Tubing Insert, Brass	
D	64-50023	Mounting bracket, nylon	
E	60-10026	Lock knob	
F	60-50000	1/4" External tooth lock washer	
G	60-50003	1" Bolt; steel; Zinc plated	
H	60-50001	Flat washer; steel; Zinc plated	
I	60-50009	Lock washer; steel; Zinc plated	
J	350-0062	Hex nut, steel; Zinc plated	
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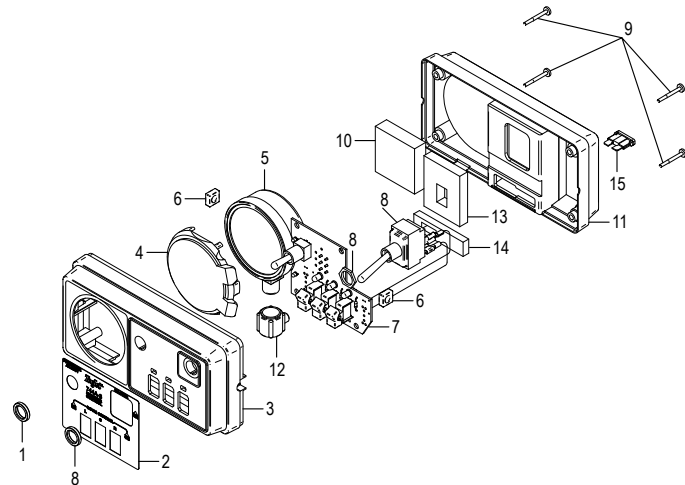
Item	Part No.	Description	Illustration
M	75-50061	TeeJet 744E - 5 sections console, 100 PSI	
	75-50060	TeeJet 744E - 3 sections console, 100 PSI	
N	45-10133	Harness, TJ744E 3 Section, 7 1/2.m	
	45-10134	Harness, TJ744E 5 Section, 13 1/4.m	
O	98-70030	744E User Manual	

## Control Housing Assembly

New consoles have boom switches, gauge lamps/LEDs and boom LED soldered to the circuit board.

Item	Part Number	Description
1	60-50020	Knurled nut; Brass nickel plated
2	--	Graphic panel
3	64-50024	Front housing
4	64-50031	Lens gauge
5	51-20008	100 PSI Liquid gauge
6	60-50019	Square nut (2 required)
7	--	Circuit board
8	32-50010	Toggle switch
9	350-2610	Plastic screw
10	64-50030	Foam spacer
11	64-50025	Back housing
12	64-50029	Elbow, nylon (Black)
13	64-50032	Output cable shield; Neoprene
14	64-50026	Receptacle fuse shield; Neoprene
15	604-0014	Fuse, 15A

Figure 4: Assembly



Illustrations shown may vary from actual product.

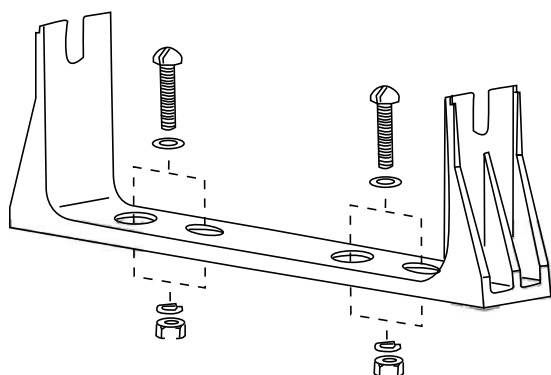


## CHAPTER 2 - INSTALLATION

### Mounting Bracket

1. Make sure all switches on the 744E Sprayer Control are turned to the "Off" position.
2. Determine the best location for the 744E Sprayer Control in the vehicle cab according to the following guidelines:
  - pressure gauge should be readily visible
  - switches should be within easy reach
  - controller bracket should rest on a flat surface
  - 12 volt DC power source must be accessible (maximum draw 10 amps)
3. Determine the proper routing for power cables and pressure tube:
  - away from operators' movement area
  - away from moving parts
  - away from sharp objects
4. Install the mounting bracket using ¼" (6.4 mm) drill, machine screws, nut, washers and lock washers as illustrated below. Attach the control housing assembly to the mounting bracket using the console adjusting knobs and washers.

Figure 5: Mounting bracket



### Tube Assembly

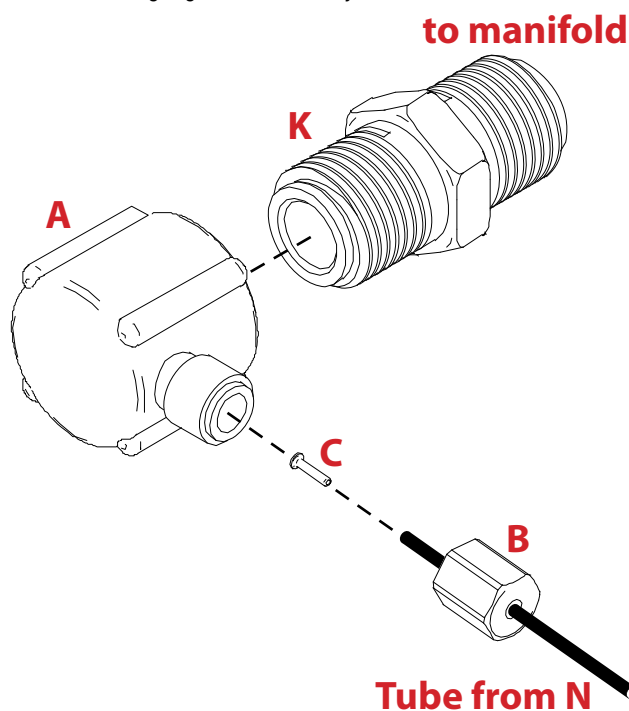
Fluid leakage around the gauge indicates a poor connection or a defective gauge.

*NOTE: All cables and tubes must be placed in a way, so that they cannot be snagged or pulled with the operator's feet. Tubes and cables must be routed around sharp metal objects, edges and moving parts with enough slack so that they will not be pulled apart when sharp turns are made.*

### Connection to Manifold

1. Connect ¼" NPT fitting (**K**) to the manifold.
2. Connect the gauge elbow (**A**) to the ¼" NPT fitting (**K**).
3. Locate the tubes on the TJ744 harness (**N**).
4. Remove the tube nuts (**B**) from the gauge elbow (**A**) and slide the tubing through the nut. The threaded portion of the nut should face its respective gauge elbow. The tube should protrude approximately ½" (1 cm) beyond the nut.
5. Insert the brass tube insert (**C**) into the end of the tube. This must be used with the gauge elbow assembly.
6. Connect tube nut (**B**) to the gauge elbow (**A**).

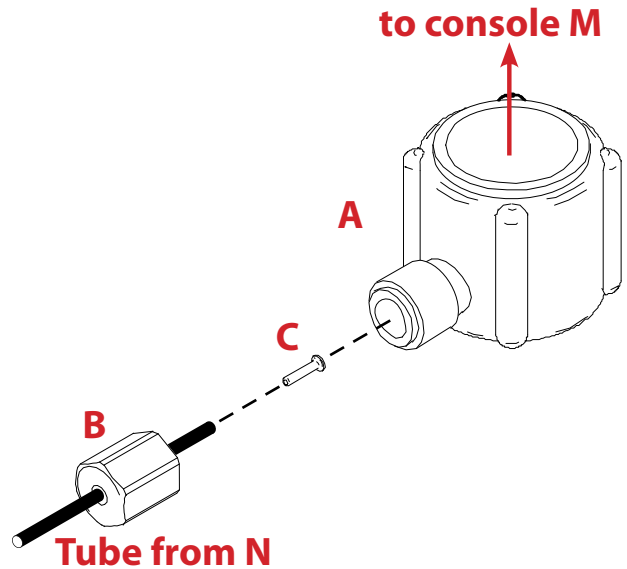
Figure 6: Pressure gauge tube assembly to a TeeJet manifold



## Connection to 744E Console

1. Locate the gauge elbow (A) on the TJ744 console (M).
2. Remove the tube nuts (B) from the gauge elbow (A) and slide the tubing through the nut. The threaded portion of the nut should face its respective gauge elbow. The tube should protrude approximately 1/2" (1 cm) beyond the nut.
3. Insert the brass tube insert (C) into the end of the tube. This must be used with the gauge elbow assembly.
4. Connect tube nut (B) to the gauge elbow (A).

Figure 7: Pressure gauge tube assembly to the 744E console



## CHAPTER 3 - MAINTENANCE

### Routine Procedures

Several routine procedures should be followed to help maintain the 744E Sprayer Control system.

1. Check all wires and connections for wear, damage and frayed ends to prevent shorting out of the system.
2. Make sure that the mounting bracket for the 744E Sprayer Control is mounted securely.
3. All connections and terminals should be free of corrosion.
4. The control unit is designed so that it may be removed, cleaned and stored during periods of non-use to protect it from extreme heat or cold.
5. The 744E Sprayer Control is NOT WATERPROOF. Do not immerse the unit when cleaning.
6. Periodic flushing of the sprayer will help prevent clogging due to residue buildup.

### Removal of Control Unit

1. De-pressurize the system.
2. Uncouple the nylon pressure tube from outside the vehicle cab and allow the liquid to drain. Uncouple the tube from the bottom of the unit.
3. Disconnect the input power cable from the back of the unit.
4. Disconnect the output control cable from the back of the unit.
5. Loosen the triangular knobs on both sides of the unit and slide the unit off of the bracket.



# 744E SPRAYER CONTROL

## U S E R M A N U A L

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### TeeJet 744E Manual Sprayer Control for use with Ball Valves

- Manual spray controller in a compact package
- 3 or 5 sections control
- Liquid filled 100 PSI (7 bar) pressure gauge
- Lighted pressure gauge for night use
- Heavy-duty switches with LED indicators
- Available in a variety of kit forms using ball valve control manifolds
- Kits include wiring harness



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