



# HYDRAULIC LINE CONNECTION DIAGRAMS

**HWH® SPACEMAKER® SLIDE-OUT SYSTEMS**

**FEATURING:**

*Dual-Cylinder "Universal Level-Out (ULO)" Slide-Out System*

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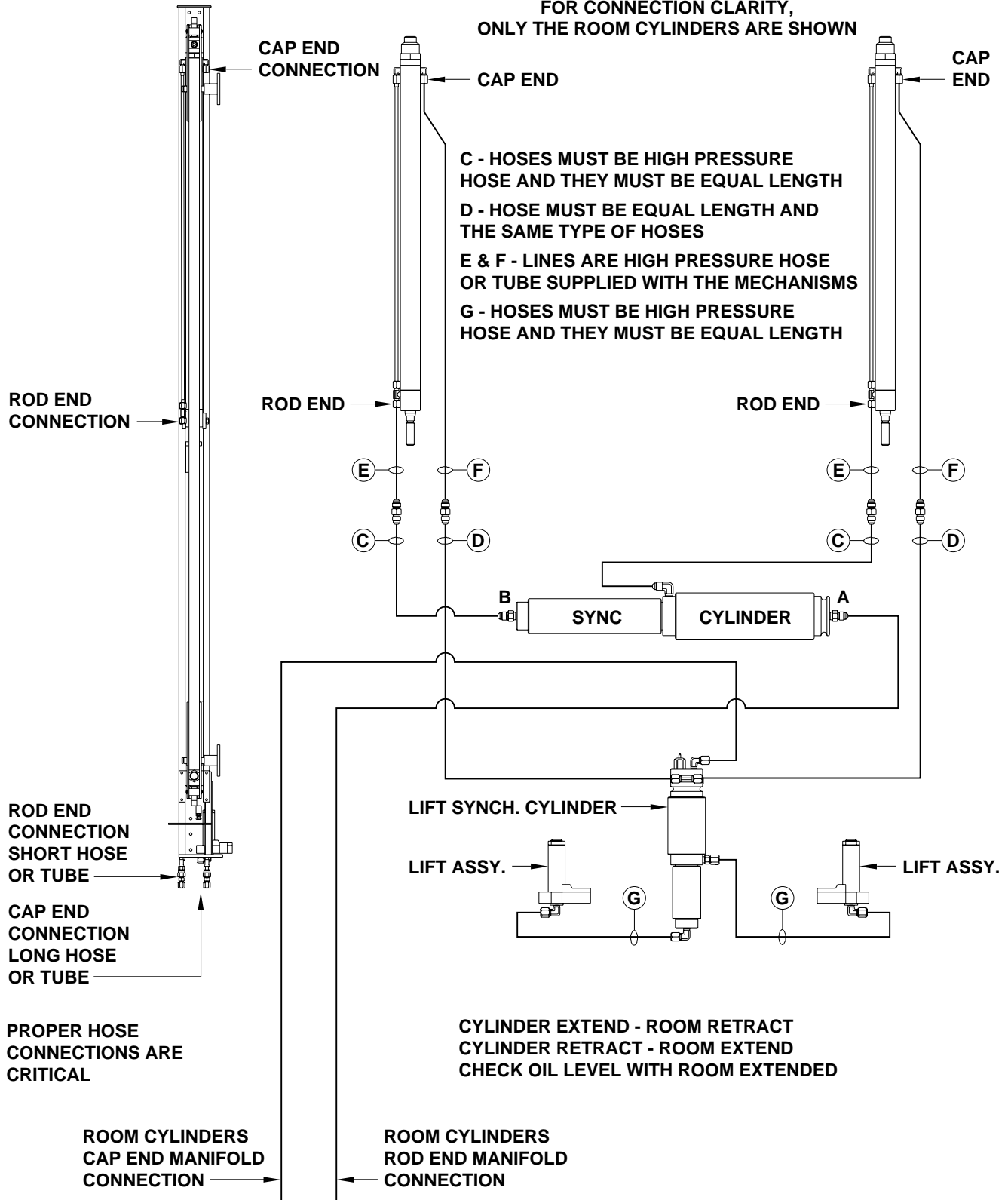
**ML50393/MP04.9800G**

**20JUN12**

# GENERIC HYDRAULIC LINE CONNECTION DIAGRAM UNIVERSAL LEVEL OUT ROOM EXTENSION WITH ROOM LIFT CYLINDERS

FRONT VIEW  
OF MECHANISM

FOR CONNECTION CLARITY,  
ONLY THE ROOM CYLINDERS ARE SHOWN

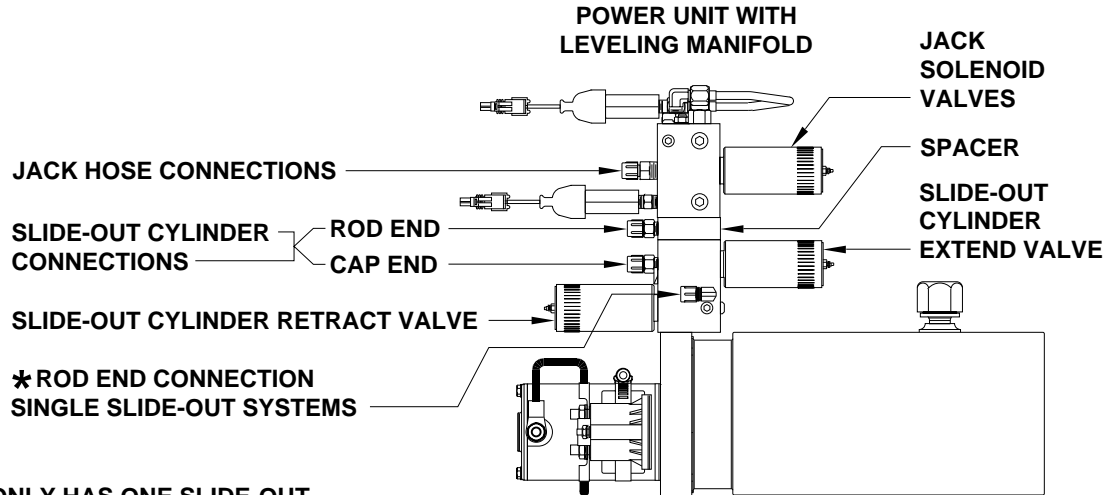


SEE MP64.9900 FOR  
PUMP MANIFOLD CONNECTION VARIATIONS

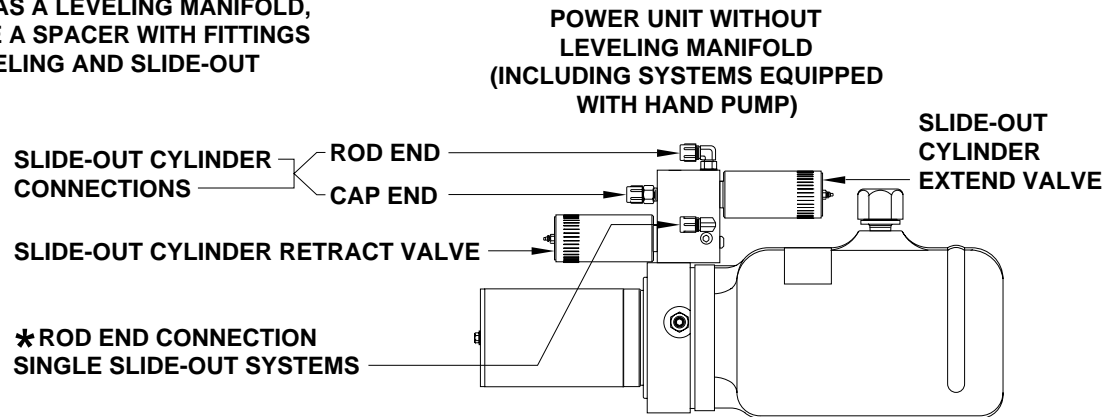
# HYDRAULIC LINE CONNECTION DIAGRAM

## SLIDE-OUT LINE CONNECTIONS AT THE MANIFOLD

### ALL HWH SLIDE-OUT MECHANISMS



\* IF THE VEHICLE ONLY HAS ONE SLIDE-OUT AND THE MANIFOLD IS NOT EQUIPPED WITH AN AUXILIARY HAND PUMP, THE ROD END HOSE CONNECTION MAY BE AT A FITTING THAT IS ON EITHER END OF THE SLIDE-OUT MANIFOLD. IF THE POWER UNIT HAS A LEVELING MANIFOLD, THERE WILL NOT BE A SPACER WITH FITTINGS BETWEEN THE LEVELING AND SLIDE-OUT MANIFOLDS.

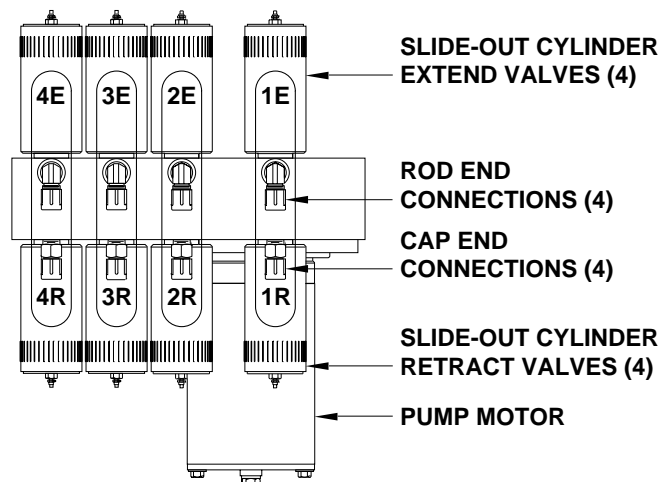


HOSE CONNECTIONS AT THE MANIFOLD ARE CRITICAL. IMPROPER HOSE ROUTING WILL CAUSE INCORRECT SLIDE-OUT FUNCTION AND CAN CAUSE SEVERE DAMAGE TO SLIDE-OUT CYLINDERS OR SOLENOID VALVES. IF A ROD AND CAP END HOSE ARE REVERSED FOR A SLIDE-OUT, THE SLIDE-OUT CYLINDER(S) WILL EXTEND BUT NOT RETRACT.

THE ROD AND CAP HOSES MUST GO TO THE CORRECT FITTINGS IN LINE WITH THE CORRECT EXTEND AND RETRACT VALVES FOR THE SLIDE-OUT. IF THE ROD END OR CAP END HOSES FOR TWO SLIDE-OUTS ARE SWAPPED, EXTREME PRESSURE WILL DAMAGE THE SOLENOID VALVES OR SLIDE-OUT CYLINDERS.

CONNECTION INFORMATION ON THIS PAGE IS THE SAME FOR SYSTEMS EQUIPPED WITH AUXILIARY HAND PUMPS OR REMOTE SLIDE-OUT MANIFOLDS.

TOP VIEW OF 4 SLIDE-OUT MANIFOLD



# HYDRAULIC LINE CONNECTION DIAGRAM

## GENERIC DIAGRAM FOR

### UNIVERSAL LEVEL OUT SLIDE-OUT

\* INCLUDED WITH ROOM MECHANISM

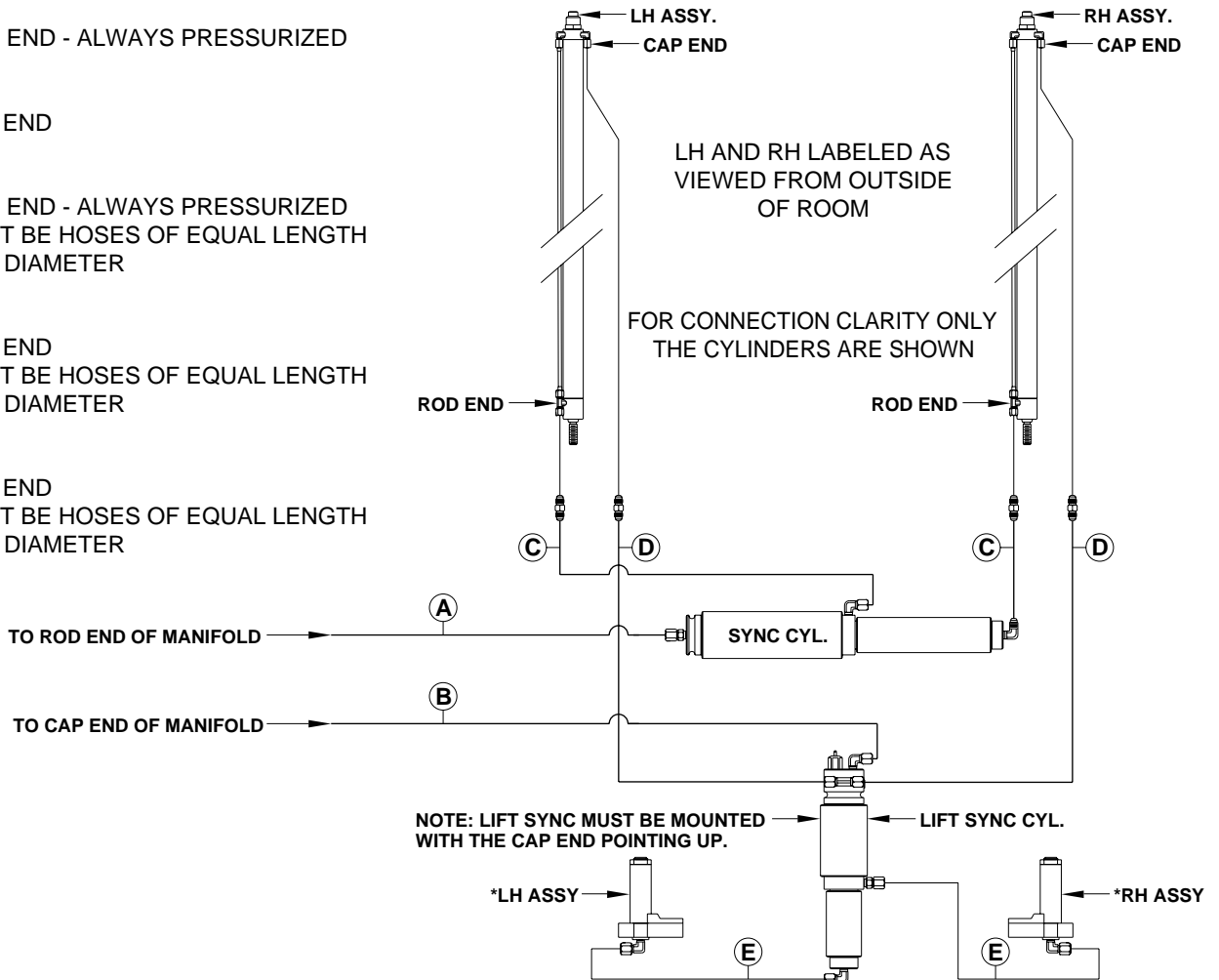
(A) ROD END - ALWAYS PRESSURIZED

(B) CAP END

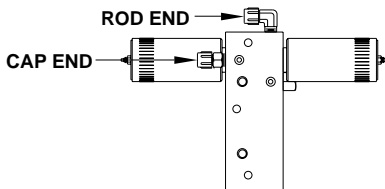
(C) ROD END - ALWAYS PRESSURIZED  
MUST BE HOSES OF EQUAL LENGTH  
AND DIAMETER

(D) CAP END  
MUST BE HOSES OF EQUAL LENGTH  
AND DIAMETER

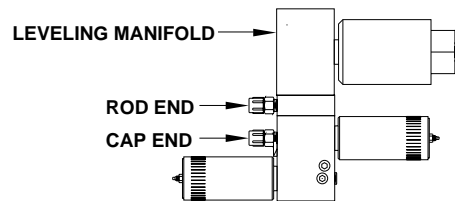
(E) CAP END  
MUST BE HOSES OF EQUAL LENGTH  
AND DIAMETER



TOP VIEW  
SINGLE SLIDE-OUT MANIFOLD



SIDE VIEW  
MULTIPLE SLIDE-OUT MANIFOLD  
WITH LEVELING MANIFOLD



SIDE VIEW  
REMOTE MANIFOLD OR SLIDE-OUT MANIFOLD  
WITH NO LEVELING MANIFOLD OR  
WITH AUXILIARY HAND PUMP

