



Smart Irrigation
From the Ground Up

(800) 272-7472
www.tucor.com

TUCOR'S Hybrid 3D is a simple, innovative and inexpensive conversion system. Use your favorite conventional controller and Tucor's Hybrid 3D allows you to:

- Add a Master Valve and Flow Meter to your system on top of your existing valves' common and control wires.
- Add multiple valves to your existing system with wires already in place.
- Convert your conventional controller to a Tucor 2-Wire decoder system.

No need to run wires back to your controller to expand existing system. Enjoy all the advantages of 2-wire with the controller you already use.

SPECIFICATIONS

Specifications:

- 24 VAC, sourced from current controller
- 24 station inputs; 48 with additional 3D installed in parallel
- Each 3D has 1 Master Valve and 1 Flow Sensor input
- Up to 3 stations simultaneously
- 2-Wire distances up to 8000 feet
- Status LEDs
- Decoders programmed at the 3D or with the optional programmer

Requirements:

- 3DLD-050 decoders for converted stations and Master Valve
- 3DSD-100 sensor decoder for Flow Sensor
- For Master Valve and Flow Sensor inputs, current controller must support them

Options:

- 3D-DL: Dynamic load for controllers that measure electrical current prior to and during the solenoid operation
- HCP-100: Handheld programmer
- 3DSD-100-M: sensor decoder for flow sensors having a photo diode (e.g., Hydrometer PDH)



Hybrid 3D on a conventional controller



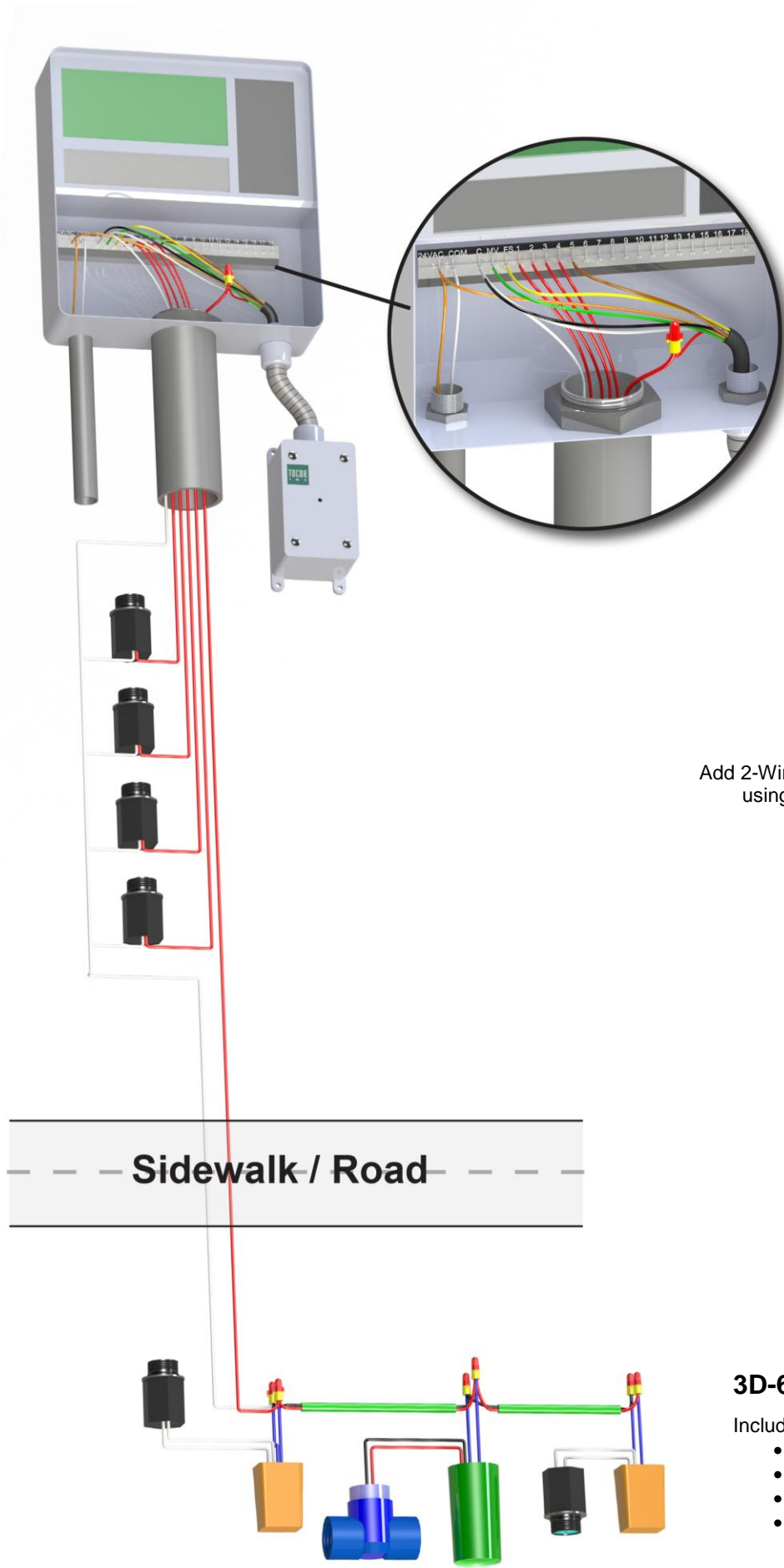
Optional handheld programmer

Ordering Configurations:

- 3D-6 Up to 6 valves , MV and Flow Sensor
- 3D-24 Up to 24 valves, MV and Flow Sensor
- 3D-6-FA-(1) Flow Assembly includes 3D-6,3D-SD, Flow Sensor, (2) pre-programmed 3D-LD
- 3DLD-050 Line Decoder
- 3DSD-100 Flow Sensor Decoder
- SP-100 Line Surge Protection
- TW/18/2 Tucor Wire

2-Wire Distances (ft.)

Simultaneous operation	TW18/2AWG	TW16/2 AWG	TW14/ AWG
1 valve	3000	6000	8000
2 valves or 1 valve + MV	2300	4600	6000
3 valves or 2 valves + MV	1500	3000	4000

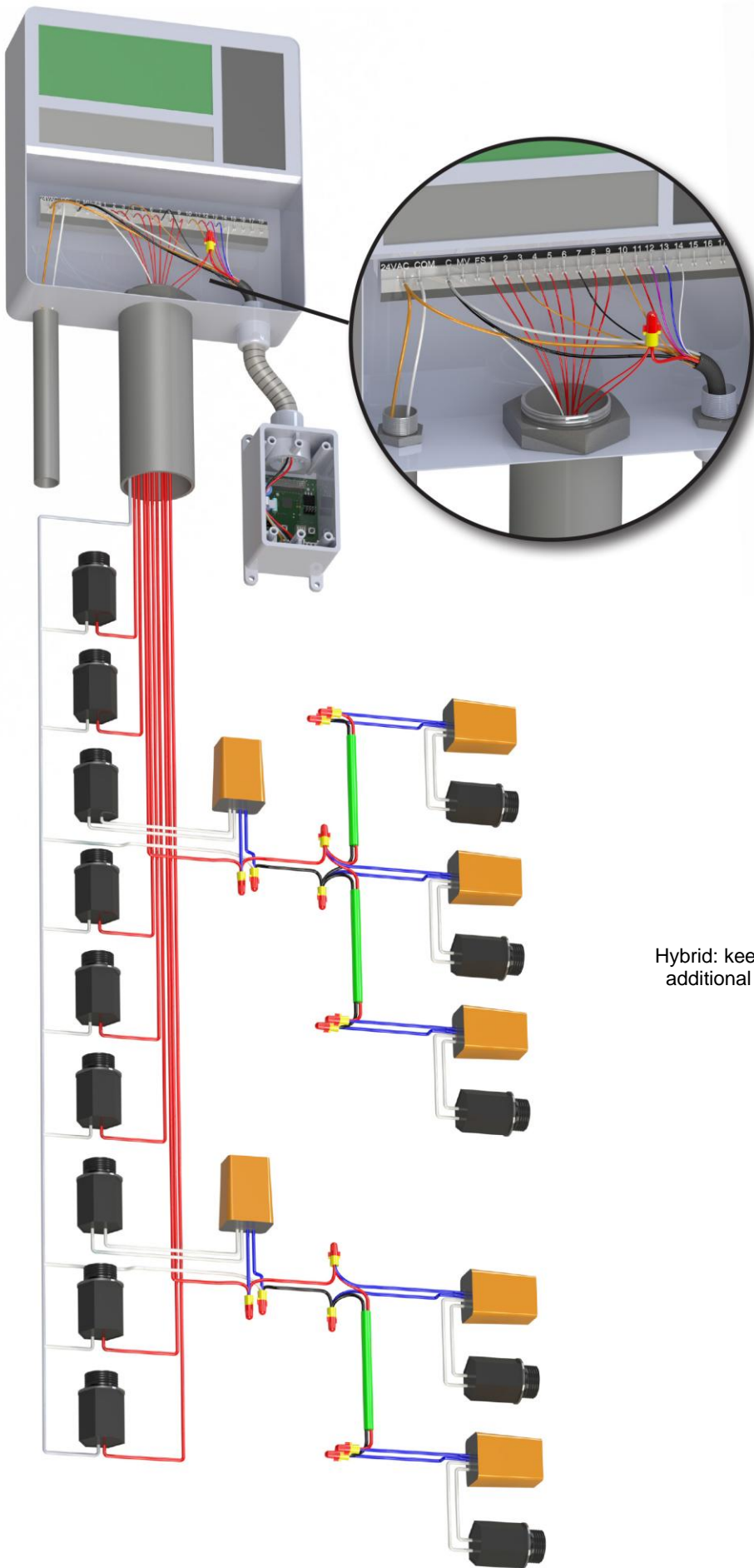


3D-6

Add 2-Wire, Master Valve, and Flow Meter, using existing conventional wires.

3D-6-FA Flow Assembly

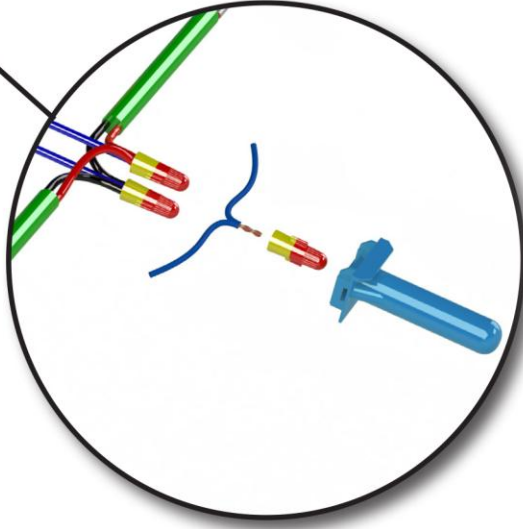
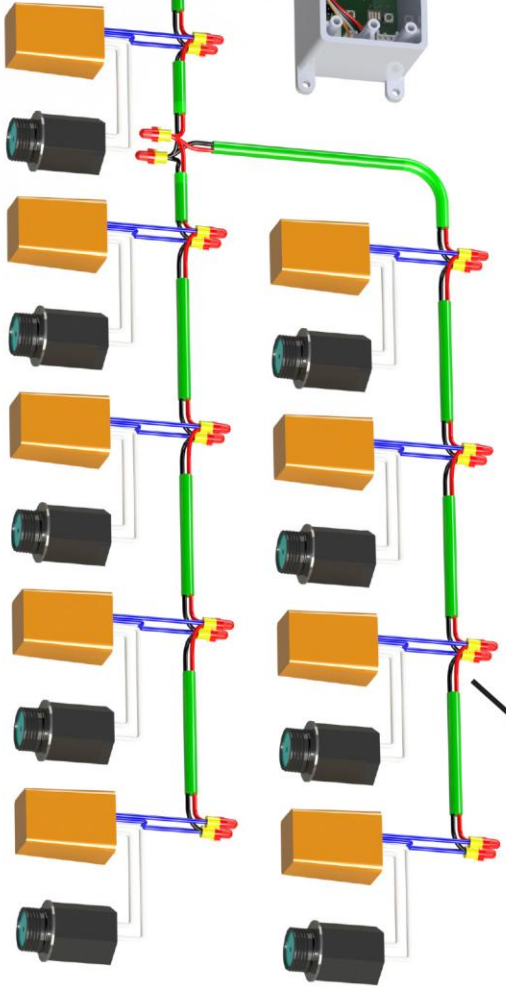
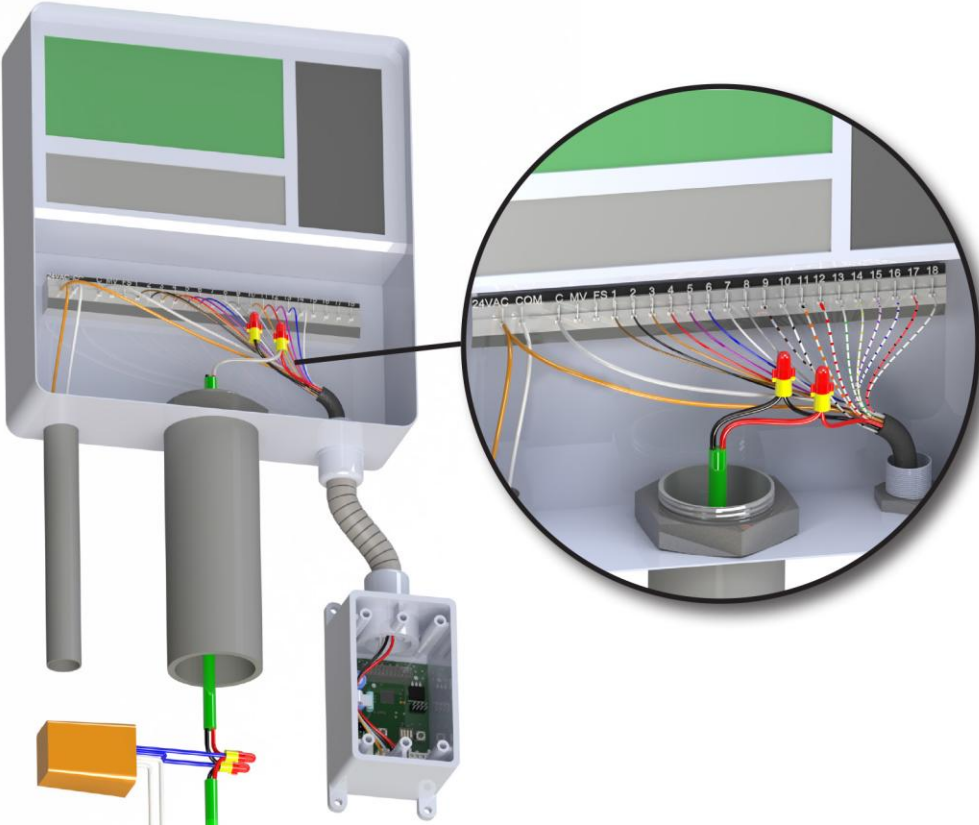
- Includes:
- 3D-6
 - 3DSD-100 flow sensor decoder
 - Flow sensor
 - Two pre-programmed 3DLD-050 line decoders



3D-6 for up to 6 valves

3D-24 for up to 24 valves

Hybrid: keep current conventional outputs and add additional valves by converting them to a 2-wire system.



3D-24
Simple conversion to 2-Wire

HYBRID 3D

Part Number	Description
3D-6	3D with 2 wire output for up to 6 valves, flow sensor, master valve, Nema 4X enclosure with flex conduit connection.
3D-24	3D with 2 wire output for up to 24 valves, flow sensor, master valve, Nema 4X enclosure with flex conduit connection.

3D Decoders

3DL-050	Single Valve Line Decoder for use with 3D. Purchase quantity 10 (10 % discount in quantities of 100).
3DSD-100	Flow Sensor Decoder for 3D.
3DSD-100-M	Flow Sensor Decoder for 3D with 5 VDC for Photo Diode Register. (Hydrometer.)
SP-100	Line Surge Protection.

3D with Flow Assembly (CST)

3D-6-FA-1	Flow Assembly includes the 3D-6, 3DSD-100 flow sensor decoder, 1" CST flow sensor and (2) pre-programmed 3DL-050 Line decoders for master and support valve.
3D-6-FA-1.5	Flow Assembly includes the 3D-6, 3DSD-100 flow sensor decoder, 1.5" CST flow sensor and (2) pre-programmed 3DL-050 Line decoders for master and support valve.
3D-6-FA-2	Flow Assembly includes the 3D-6, 3DSD-100 flow sensor decoder, 2" CST flow sensor and (2) pre-programmed 3DL-050 Line decoders for master and support valve.

3D with Flow Assembly (Hydrometer PDR)

3D-6-HM-PDR-NO-1.5	Flow assembly includes the 3D-6, 3DSD-100-M sensor decoder, 1.5" Hydrometer with High Frequency Photo diode / N.O. master valve and (2) pre-programmed 3DL-050 line decoders for master and support valves.
3D-6-HM-PDR-NO-2	Flow assembly includes the 3D-6, 3DSD-100-M sensor decoder, 2" Hydrometer with High Frequency Photo diode / N.O. master valve and (2) pre-programmed 3DL-050 line decoders for master and support valves.
3D-6-HM-PDR-NO-3	Flow assembly includes the 3D-6, 3DSD-100-M sensor decoder, 3" Hydrometer with High Frequency Photo diode / N.O. master valve and (2) pre-programmed 3DL-050 decoders for master and support valves.
3D-6-HM-PDR-NO-4	Flow assembly includes the 3D-6, 3DSD-100-M sensor decoder, 4" Hydrometer with High Frequency Photo diode / N.O. master valve and (2) pre-programmed 3DL-050 decoders for master and support valves.

3D with Flow Assembly (Hydrometer RS)

3D-6-HM-RS-NO-1.5	Flow assembly includes the 3D-6, 3DSD-100 sensor decoder, 1.5" Hydrometer with Reed Switch Register / N.O. master valve and (2) pre-programmed 3DL-050 decoders for master and support valves.
3D-6-HM-RS-NO-2	Flow assembly includes the 3D-6, 3DSD-100 sensor decoder, 2" Hydrometer with Reed Switch Register / N.O. master valve and (2) pre-programmed 3DL-050 decoders for master and support valves.
3D-6-HM-RS-NO-3	Flow assembly includes the 3D-6, 3DSD-100 sensor decoder, 3" Hydrometer with Reed Switch Register / N.O. master valve and (2) pre-programmed 3DL-050 decoders for master and support valves.
3D-6-HM-RS-NO-4	Flow assembly includes the 3D-6, 3D-3DSD-100 sensor decoder, 4" Hydrometer with High Frequency Photo diode / N.O. master valve and (2) pre-programmed 3DL-050 line decoders for master and support valves.

Printed Circuit Boards

3D-PCB	Two wire Decoder Interface PCB.
3D-DL-PCB	Add on PCB with Dynamic Load feature for controllers with advanced valve diagnostics prior to and during operation of valves.

Tools

HCP	Hand Held Decoder Programmer.
AC50A	Current Leakage Meter.