



## Installation Manual

For the WeedSeeker® Large Systems using the  
Model 151/153 Master Controller &  
Model 155 Line Controller System



### Corporate Office

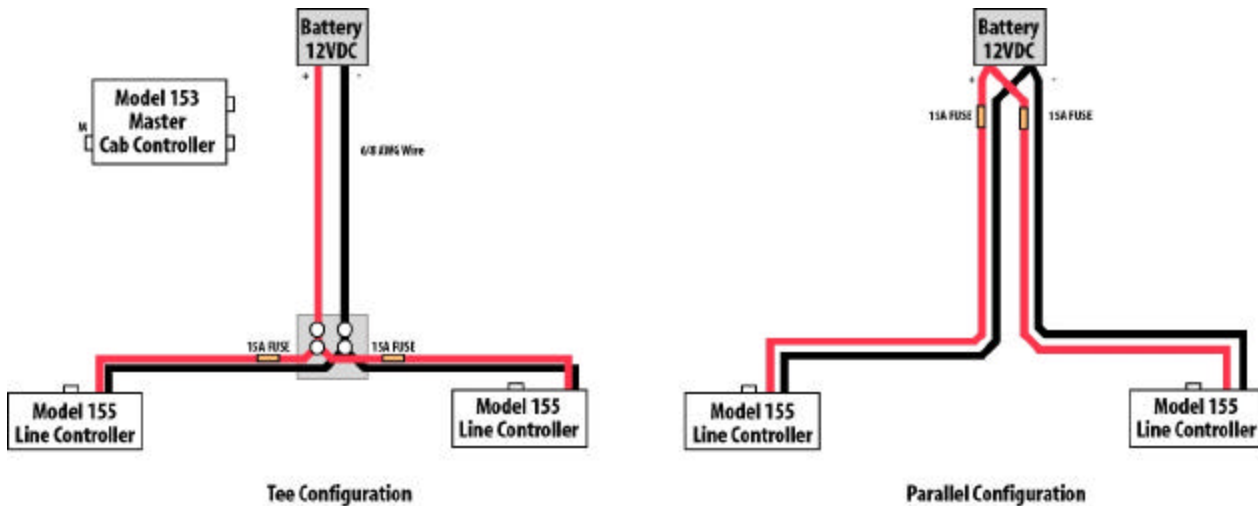
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## Summary

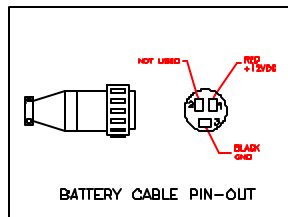
The multi-controller system permits the operation up to four Line Controllers and 120 sensors from a single Master Control Panel in the cab.

## Power Wiring

Per Fig. 1, two configurations are shown. It is important to provide enough current with a minimal voltage drop in the wires. Heavy, *stranded* wire pairs should be brought to each unit from the battery. Eight gauge (8 AWG) wire is recommended to each Line Controller for total distances greater than 20 ft from battery to controller. Tinned copper stranded wire is recommended, as it is more flexible and substantially less prone to oxidation. **Also, it is *highly recommended* to solder the connections at splices or terminal lug connections. See Fig. 2 for connector pin-out.**



**Fig. 1. On large booms, a heavy wire pair (8 AWG) is run from the battery to each Line Controller, either directly or through a power block Tee.**

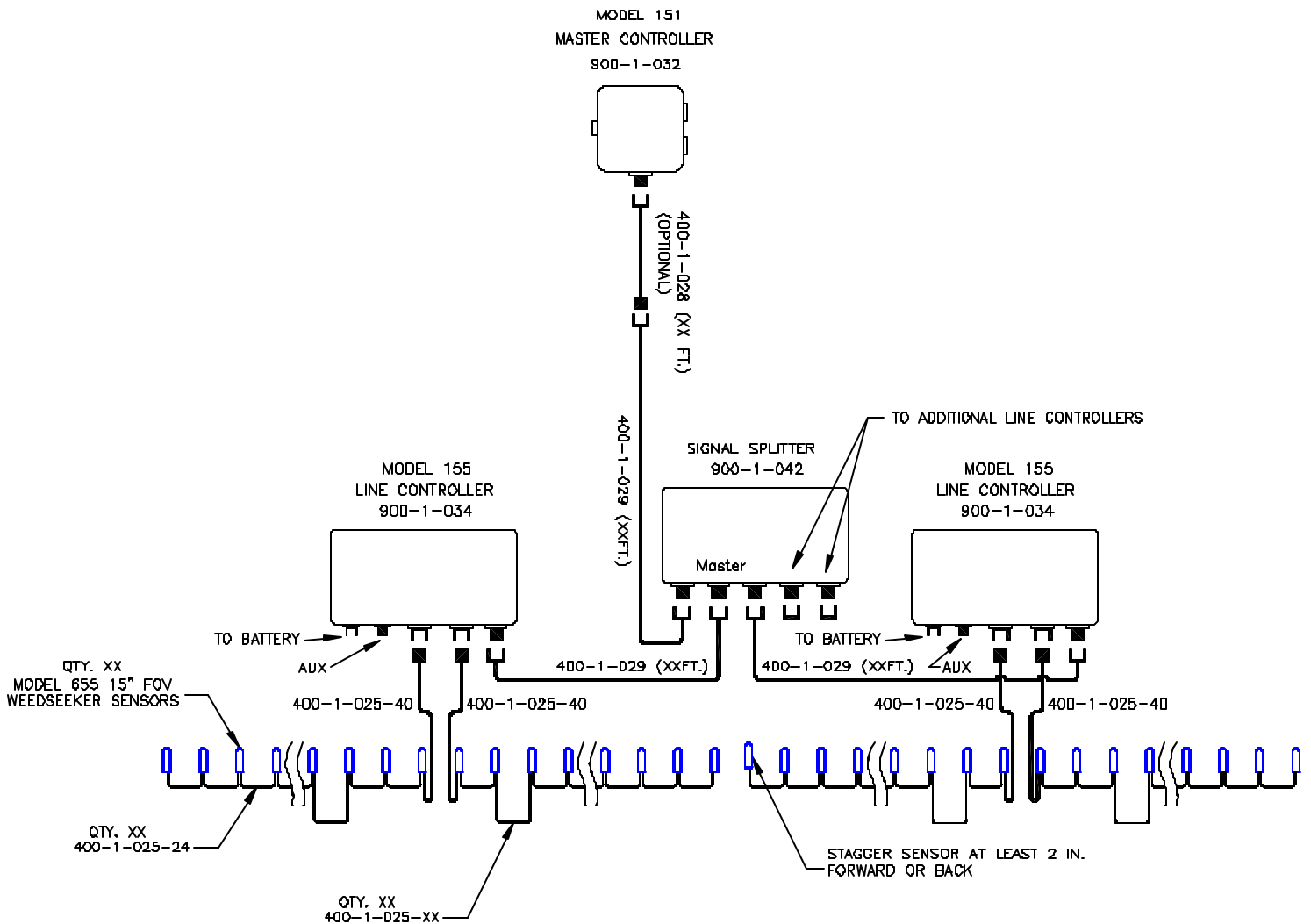


**Fig. 2. Connector pin-out.**

## System Diagram

Shown is a typical Master/Line Controller System. The 400-1-029 Cable lengths are determined based on installation requirements.

When connecting the Line Controllers to the Signal Splitter, *one of the units must be cabled to the "Master" port* for the system to function.



**Fig 3. The System shown is configured to run two Line Controllers, which can operate up to 60 Sensors. An additional two Line Controllers may be added to operate up to 120 Sensors. The Line Controllers can operate with independent or shared Lift switches and Ground Speed Sensors.**

## Configuration Options

### Cable Lengths

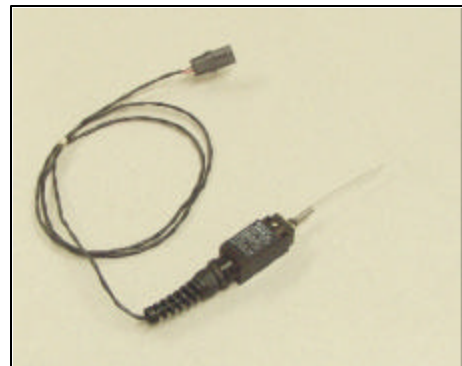
The cables from the Master Controller to the Line Controllers (400-1-028 & -029) have a standard length. Custom lengths are available if required on larger systems.

### Optional Inputs: Ground Speed and Remote Standby

**Ground Speed Sensor.** Like the Model 150 Controllers, the Line Controllers have an AUX input for receiving one or more external signals. If a ground speed sensor such as a radar is connected, the speed range for the WeedSeeker® sensors is selected automatically, eliminating the need for manual speed selection by the operator.

As booms are built wider, the speed at one end of the boom can be much different than the other end when the boom is turning. This can be an issue on hilly terrain. To improve accuracy of the WeedSeeker® Sensors, separate radars can be mounted on each half of the boom to give a truer speed input to each line controller. (Refer to the WeedSeeker® Operation Manual for more information on Sensor timing and the Auto-Speed option.)

**Remote Standby Switch.** On some large systems, the Remote Standby input is used to deactivate the sensors if the boom is lifted. A normally-closed switch (referred to as a *Lift switch*) is mounted so that it opens when the boom is up. Note that the switch simply connects an input to ground; if applicable, several switches may be connected in series so that any of them may put the system in Standby mode.



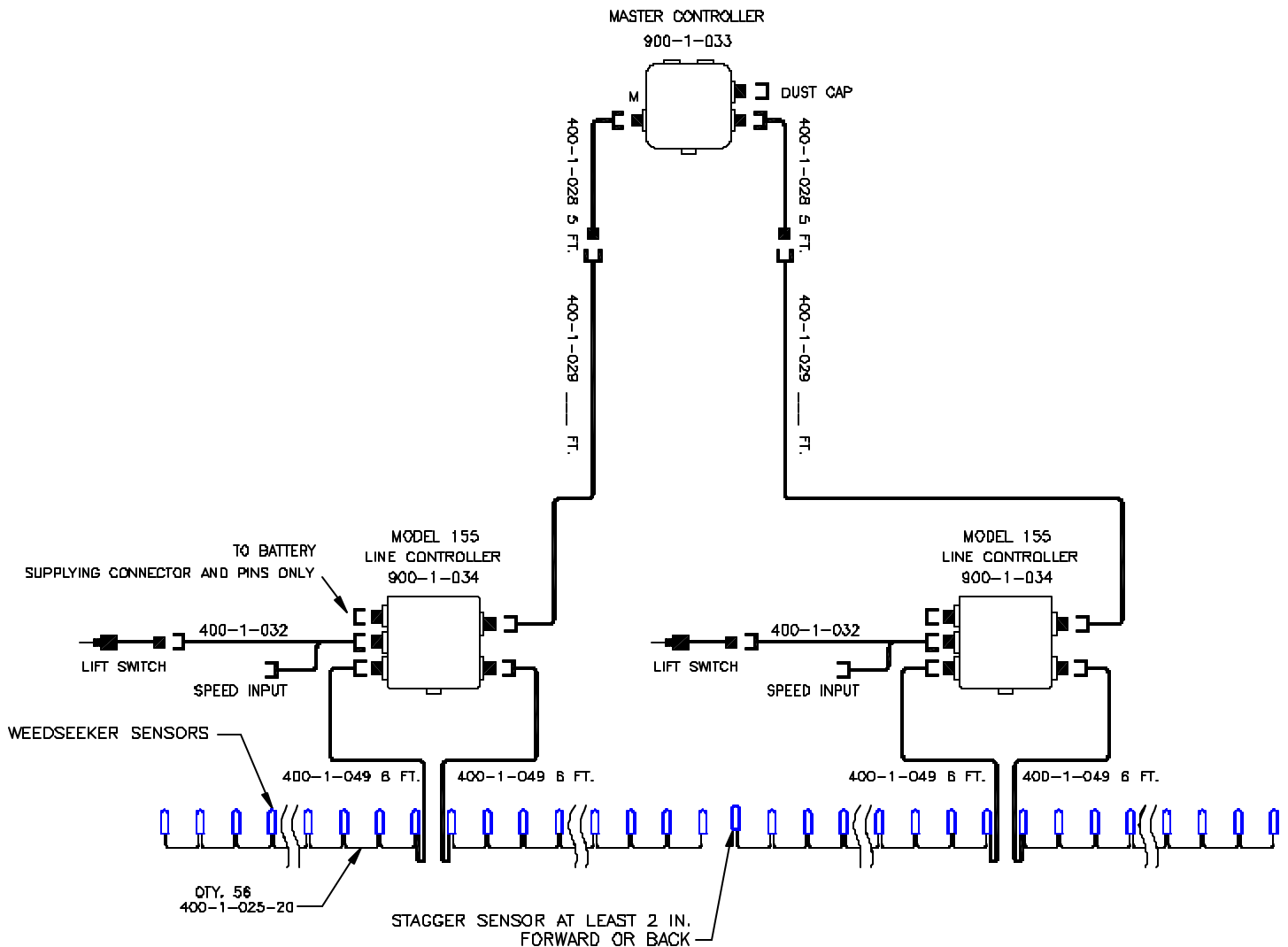
## Revision History

A	2003-09-25	Release
B	2005-07-20	Wire Size Requirement increased to 8 AWG; updated address block
C	2005-08-22	Include direct-to-controller wiring diagram
D	2008-11-13	Changed to new configuration with Signal Splitter, etc.

## Appendix A: First Generation Large System Diagram

Shown is the first generation form of the Master/Line Controller System. It is identifiable because the Master Controller will have more than one output port and there is no Signal Splitter. The 400-1-029 Cable lengths are determined based on installation requirements.

When connecting the Line Controllers to the Master Controller, *one of the units must be cabled to the "Master" port* for the system to function.



**Fig 4** This System is configured to run two Line Controllers, which can operate up to 60 Sensors. An additional Line Controller may be added to operate up to 90 Sensors. The Line Controllers can operate with independent or shared Lift switches and Ground Speed Sensors.