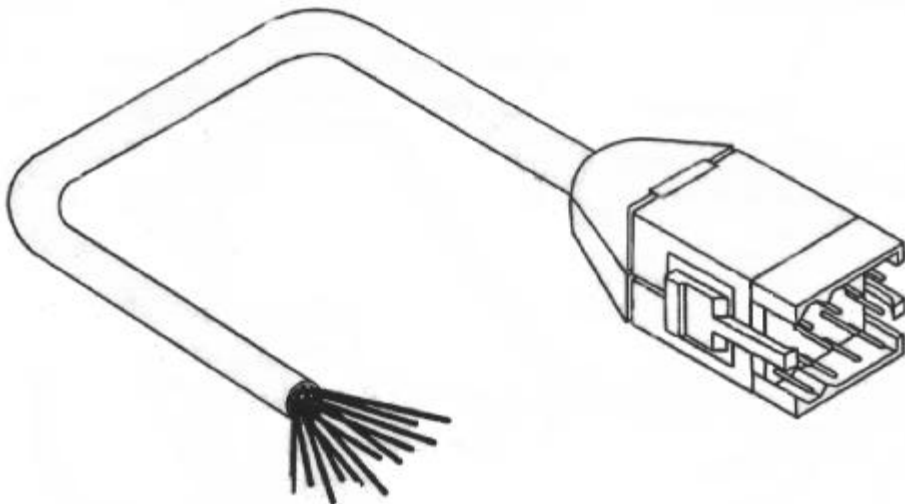




SPRAYER CONTROL INTERFACE LEAD

REF: S/CBL/159-1-012



This cable is used to interface between a sprayer or spreader boom section control unit and an RDS Ratemaster 20, Delta 1, Delta 2, Delta 3, Delta 4, Sands SAC, Chafer SP3, or Frazier Delta 1.

These instructions also apply to the separate Area Compensation Interface (ACI) with an integral multi-core lead.

Its function is to recognise when the sprayer or spreader is switched on and when it is switched off, and to recognise which boom sections are switched on.

Sprayer Control Interface Lead

The instrument is pre-programmed either by dedicated 'chip' in the case of the Ratemaster 20, or by operator programming in the instrument, with the number of nozzles per boom section.

This ensures that the area accumulation and application rates are monitored and regulated correctly for the width of implement actually in use.

The lead has 12 cores each having the following functions:

Core Terminal ACI	Colour	Function	
		Ratemaster	Deltas, Sands SAC, 20/ Chafer SP3
1	Red	Boom section 1	Boom section 1
2	pink		
3	White	2	2
4	Grey	3	3
5	Violet		
6	Turquoise	4	4
7	green		
8	Yellow	5	5
9	Orange		
10	Blue	6	6
11	Black	7	7
12	Brown		

Connections to Switch Box

The multi-core cable must be connected to the sprayer or spreader control unit. A suitable cable access hole must be made in the control unit to accept the cable. This cable may be cut to any suitable length.

Each of the coloured boom section recognition leads; red, pink, white, grey, violet, turquoise, green, yellow and orange corresponds to one particular boom section.

In the case of a Ratemaster 20, a pre-programmed chip in the instrument assigns a particular number of nozzles to each coloured wire. These numbers are written on a label on the rear of the instrument (or on top of the ACI enclosure). The appropriate coloured wire must be connected to the appropriate boom section switch.

In the case of the other instruments (DELTAS, SAC, CHAFER SP3), one of the outside boom sections is section 1 and the coloured leads should be connected in sequence across the other boom sections following the colour code in the table.

Any unused boom recognition leads may be cut back to the outer insulation. The cut ends carry no voltage and therefore do not need to be insulated.

Each of the boom recognition leads which are to be used, must be connected to a point in the sprayer control unit which has a +12V switched to it, ONLY WHEN THE SECTION IS SWITCHED ON. On electrically controlled sprayers a suitable pickup point is normally available on the boom section switch either by using a piggyback terminal on the switch itself, or by using a snaplock connection to tap into the appropriate lead.

On pneumatically controlled sprayers an electro-pneumatic switch is RDS Part No. CUT/OUT/KIT004. In this case a +12V supply must be fed to the common terminal of each of the pneumatic switches and the boom recognition leads connect to the normally open terminal of each switch. (Assuming the line is pressurised to spray). On Deltas 1, 4, Sands and Chafer instruments, a +12V supply is available on the brown lead.

Master On-Off switch

If the master on/off switch removes the 12V signal from all the boom section switches when the master switch is turned off, then no further wiring connections are required, i.e. if none of the boom recognition leads is seeing a +12V supply, then the instrument recognises that the sprayer is switched off.

On some sprayers when the master switch is switched OFF, a dump valve is opened to return all the flow to the tank but the boom section on-off valves remain on.

In this case the coloured boom section recognition leads must be connected in the normal way but the black lead must also be used. the black lead should be connected to a point on the master on-off which is at +12V when the sprayer is switched ON. (When the master switch is OFF the black lead becomes connected to 0V (chassis) through the coil of the valve).

Fig. 1 Typical Switch Box

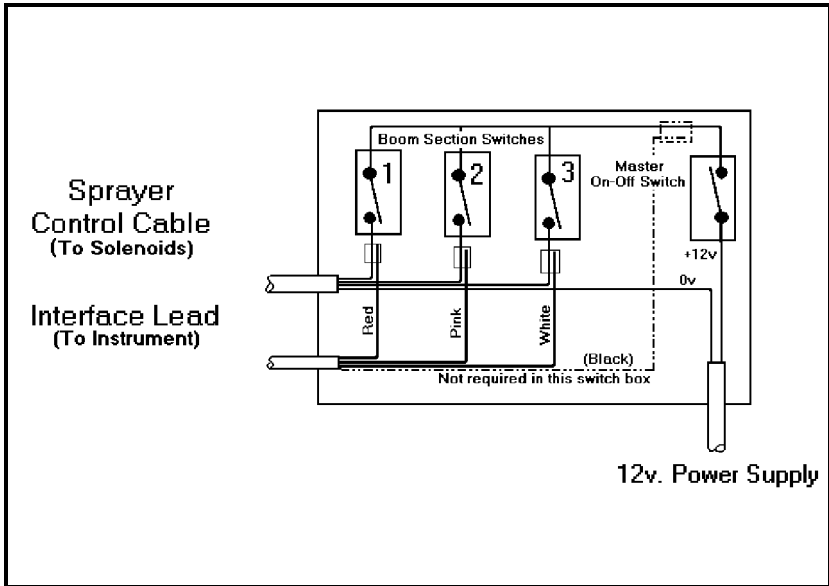
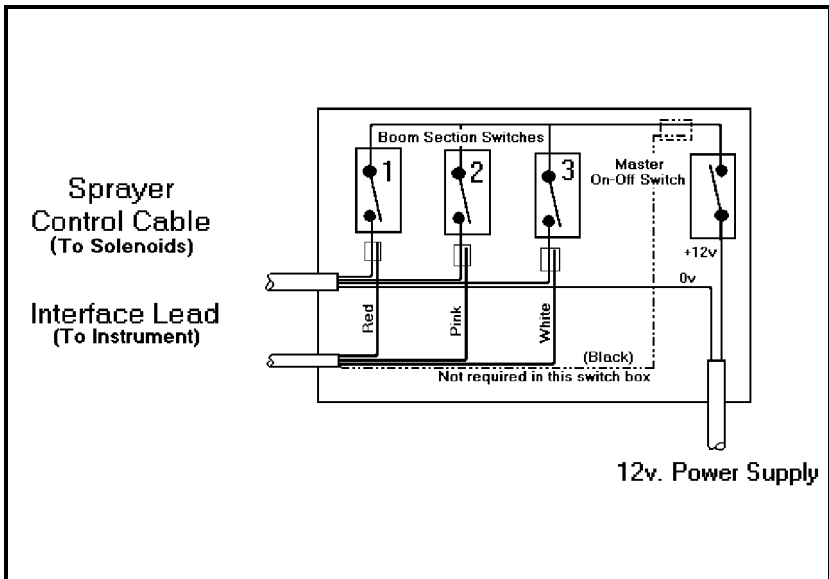


Fig. 2 Hardi EC Switch Box



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