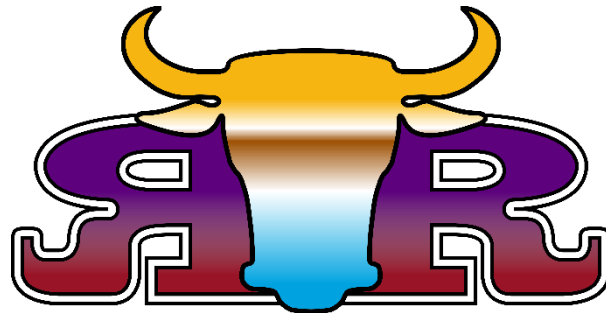


R & R Machine Works Inc.



We really appreciate you making this purchase from us and we hope the equipment meets your expectations. We strive to sell equipment that will make your business as well as ours, prosper. When you have future equipment or service needs please think of us first!

If we can be of further services to you or your company,
please call us at (806) 244-5686.

Sincerely,

Owners and Management
Dalhart R&R Machine Works, Inc.

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Limited Warranty

The manufacturer warrants this equipment to the original user against material or workmanship for a period of 30 days from the date of purchase on repair parts and labor. The manufacturer's responsibility under this warranty is limited to the repair or replacement of defective part or parts.

The manufacturer reserves the right to determine whether the part or parts failed because of material, workmanship, or other causes. Failure caused by accident, alteration, or misuse is not covered by this warranty.

A DALHART R&R MACHINE WORKS, INC. representative must perform all warranty repairs. Any repair to the equipment other than by this authorized facility voids this warranty. The rights under this warranty are limited to the original user and may not be transferred to subsequent owners.

The warranty is in lieu of all other warranties, expressed or implied, including warranties for a specific purpose.

Purchaser, Representative

Yard or Company Name

If You Are Doing Sub-Contract Work, Write In The Feed Yards Name Here.

Date



Wiring Check List

RR-500 Control Box – electrical wiring and cables

- Power Input – 240V (Single Phase in from source)
- Starters for 1 - Roll Motors 100 HP
 - Electrician provides starters
- Grease Unit
 - 120 Volt power
 - #5 input and neutral
 - Grease Unit Alarm
 - #7 and neutral
- Temperature Probe wires—all 4-20 shielded wire
 - 3 for temperature probes
 - 1 for modulating temperature steam valve control
 - Electrician provides wire
- Inverter to Peg Feeder Motor
 - 220V 3 Phase power
 - T1, T2, T3 in control box
- Steam Modulating Valve— 4-20 shielded wire
 - 120 Volt power
 - #6 input and neutral
 - Modulating Valve to Honeywell controller
 - #42+, #43-, #44 Shield
 - Electrician provides wire

Flaker Mill - electrical needs and wiring for the roll motors, hydraulic cylinders and peg feeder motor

- 1 - Roll Motors 100 HP each to electrical panel
- 1 - CT amp transformers—4-20 shielded wire from Roll Motors power to control box
 - R&R Provides (1) CT's / Electrician provides wire
- Peg Feeder Motor - 1 HP 220V 3 phase - to control box

Steam Chest - wiring for temperature probes and modulating valve on steam chest and manifold

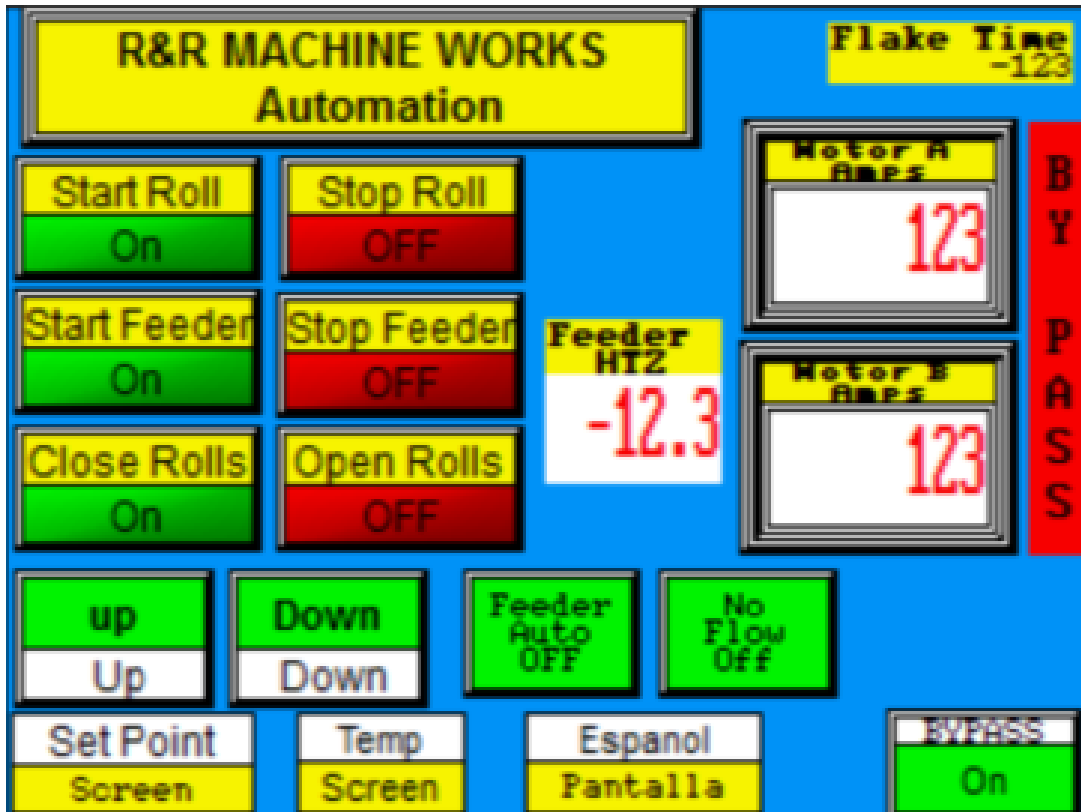
- Steam Modulating Valve-
 - 120V to control box
 - Temp Probe wire
 - 3 for temp probes and 1 for steam modulating valve
 - all 4-20 shielded wire - side of steam chest, label wires 1 - 4 (Bottom is #1)
- Honeywell controller
 - J Type wire to temperature probe
 - #39+, #40-, #41 Ground
 - R&R provides wire 75 feet



Mill Start Up Procedure

1. Press **“Start Rolls”**, Rolls must reach maximum speed (5-10 seconds)
2. Press **“Start Feeder”**
 - a. (Feeder speed will be remembered from last shutdown)
 - b. Suggested Start Speed: 20
3. Press **“Close Rolls”**

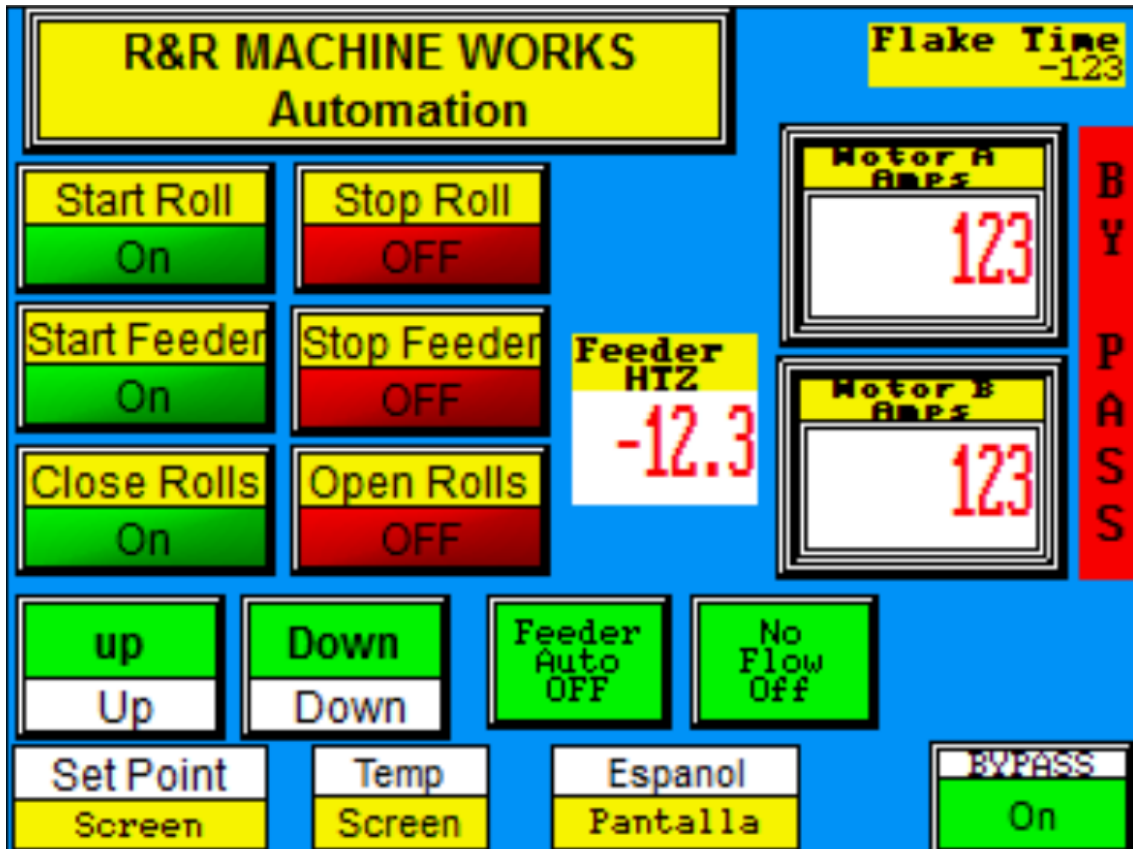
After grain is cooked, adjust feeder speed as needed, depending on grain condition.



.Mill Shut Down Procedure

1. Press **“Open Rolls”**
 - a. Adjust feeder to a minimal Suggested Speed: 20
2. Press **“Stop Feeder”**
3. Press **“Stop Rolls”**





“No Flow”: When on, the rolls will open automatically when the minimum amp setting is reached

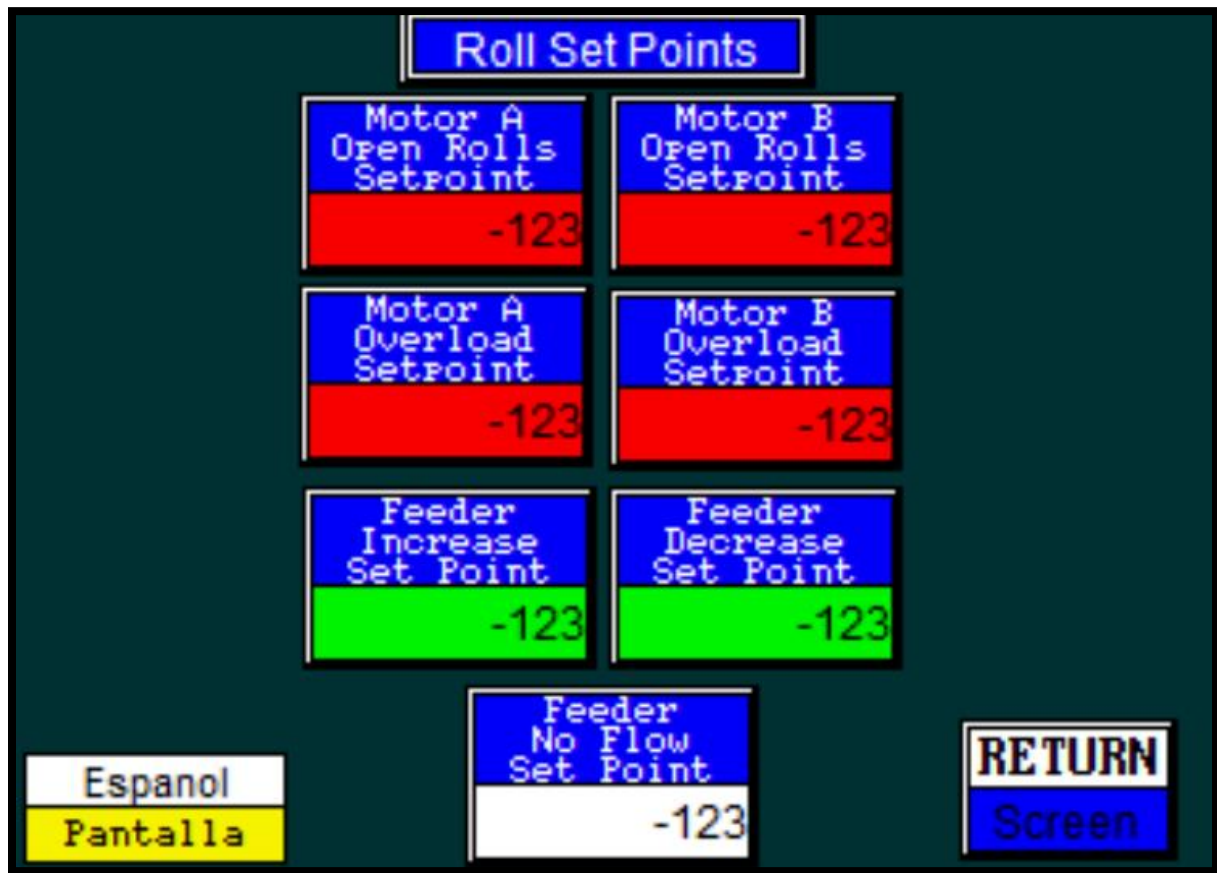
“Feeder Auto”: When on, feeder speed automatically increases or decreases

Motor “A” & Motor “B” Display: Shows current amps of roll motors

“No Flow” & “Feeder Auto” must be “On” for “Feeder speed Increases/ Decrease” to work properly.



Flake Weight



Motor Overload Set Point:

Displays manufactures maximum amp settings for roll motors. When this setting is reached, rolls open, feeder turns off. All motors shut down causing safety light to flash.

Open Rolls Set Point:

Displays maximum safe amp setting for normal operation. When this is reached, rolls open and feeder shuts off. The roll motors will continue to run.

Feeder Speed Increase:

Displays maximum feeder speed.

Feeder Speed Decrease:

Displays minimum feeder speed.

Feeder No Flow Set Point:

Displays manufactures minimum amp setting for roll motors

Manual Override Switches

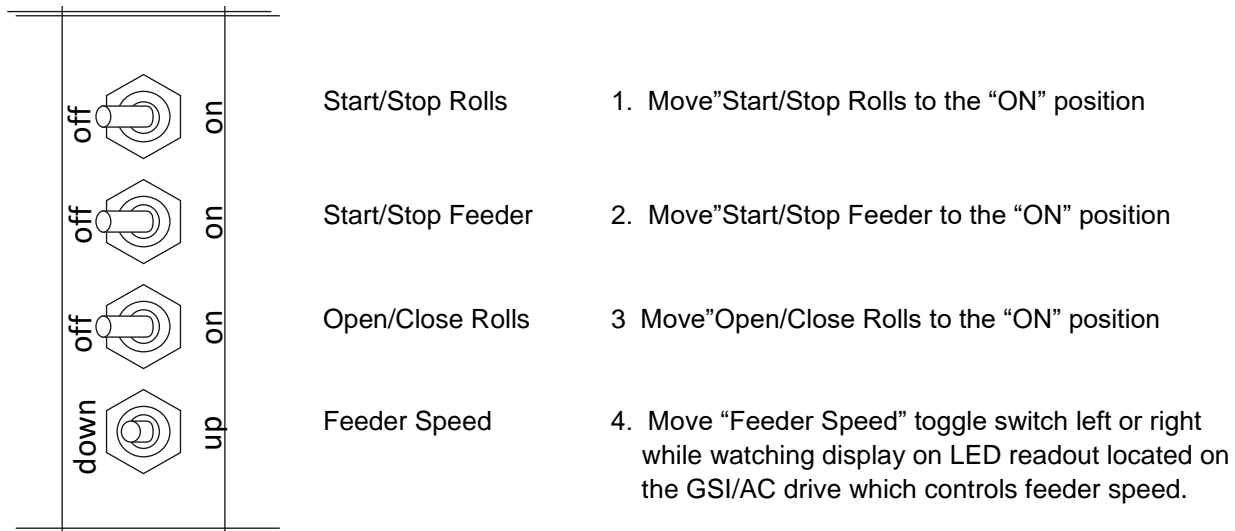


Emergency Start Up Procedure

This is an emergency procedure if the touch screen panel on the front of the control box fails to operate correctly.

Toggle switches are located inside control box on the upper right side

If the Emergency Button was previously pushed, twist button to engage electrical power.



Emergency Shut Down Procedure

1. Move "Feeder Speed" down to 20.
2. Move "Open/Close rolls" to the "Off" position.
3. Move "On/Off Feeder" to the "Off" position.
4. Move "Start/Stop rolls" to the "Off" position.
5. Press the "Emergency Off" button on front of panel for complete shut-down.



GS2 Parameters for RR500

PARAMETERS	DESCRIPTION	PARAMETER VALUES
1.00	Coast to Stop	1
1.01	Acceleration time	40
2.00	High Starting Torque	01
2.02	Auto Torque Boost	10
3.00	Source of Operation	02
3.01	Multi-Function Input Terminals	01
3.02	Multi-Function Input	14
3.03	Multi-Function Input	15
3.11	Multi-Function output Terminals	00
4.00	Source of Frequency Command	01
6.15	Upper Bound of Output	60.0
6.16	Lower Bound of Output	20.0
9.08	Restore all Parameters to Default	99
	Otherwise leave on	0.0
9.00	Command	02
9.01	Command	02
9.02	Command	05

Program Button: Changes Series of Parameter

Enter Button: Changes Parameters & Enters in Same Series

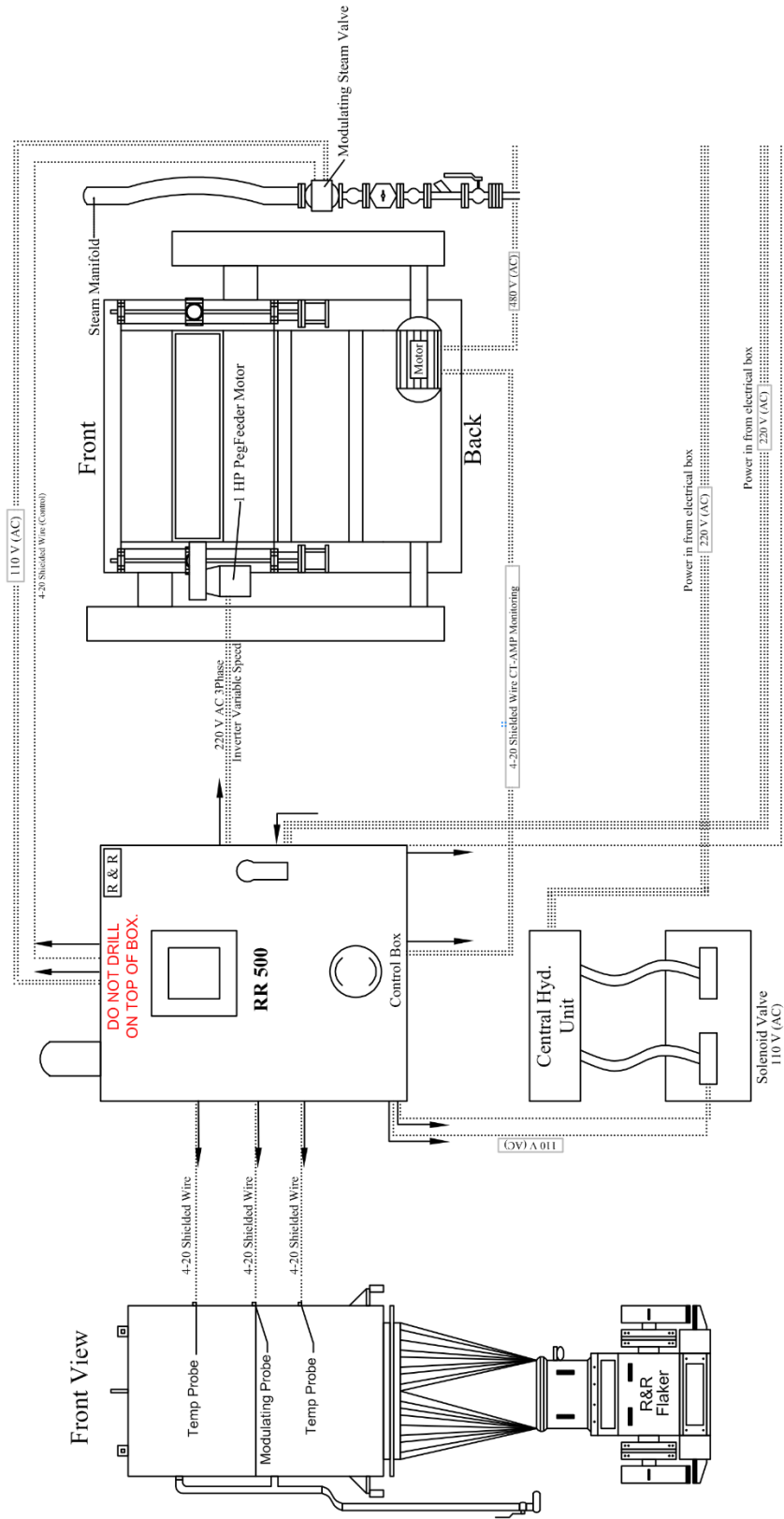
3.00 Change to 0.0 4.00 Change to 0.0	Runs Inverter on Manual
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RR500 Wiring Diagram (Drawing)



Top View

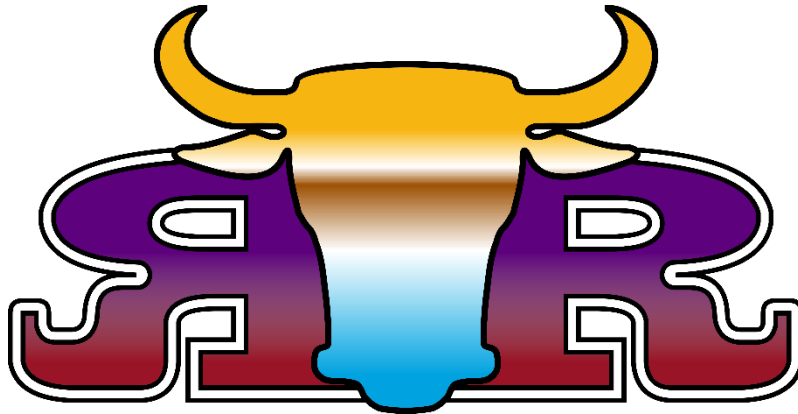


RR500 Wiring Diagram (Table)

"NO 120 VAC INPUT NEEDED"

G		G		Ground
N		N		Neutral
240		240		240VAC Single Phase (In from Source)
240		240		240VAC Single Phase (In from Source)
 				
T1		T1		240V 3 phase - Peg Feeder Motor
T2		T2		240V 3 phase - Peg Feeder Motor
T3		T3		240V 3 phase - Peg Feeder Motor
 				
N		N		Neutral
N		N		Neutral
N		N		Neutral
N		N		Neutral
1		1		Down Stream Running 120 V (Input from Drag
2		2		Rolls Start Output to contact starter
3		3		Rolls Running Input engage contact)
4		4		Rolls Close Output
5		5		Greaser Output
6		6		Modulating Valve (ABZ VALVE)
7		7		Grease Unit Alarm
21		21		(+) 4/20 CT Transducer for "A" Motor
22		22		(-) 4/20 CT Transducer for "A" Motor
23		23		Cable Shield
 				
24		24		(+) 4/20 CT Transducer for "B" Motor
25		25		(-) 4/20 CT Transducer for "B" Motor
26		26		Cable Shield
 				
27		27	#1	(+) 4/20 Temp Probe - BOTTOM ON CHEST
28		28	#1	(-) 4/20 Temp Probe - BOTTOM ON CHEST
29		29	#1	Cable Shield - BOTTOM ON CHEST
 				
30		30	#2	(+) 4/20 Temp Probe
31		31	#2	(-) 4/20 Temp Probe
32		32	#2	Cable Shield
 				
33		33	#3	(+) 4/20 Temp Probe
34		34	#3	(-) 4/20 Temp Probe
35		35	#3	Cable Shield
 				
36		36	#4	(+) 4/20 Temp Probe - TOP ON CHEST
37		37	#4	(-) 4/20 Temp Probe - TOP ON CHEST
38		38	#4	Cable Shield TOP ON CHEST
G		G		Ground
 				
39		39		(+) TC Probe White
40		40		(-) TC Probe Red
41		41		Ground
 				
42		42		(+) White
43		43		(-) Red
44		44		Shielded
G		G		Ground





RR500
Operator's Manual

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