

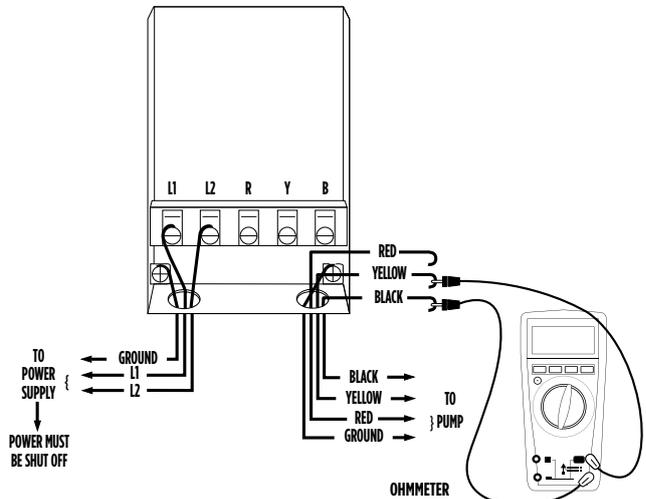
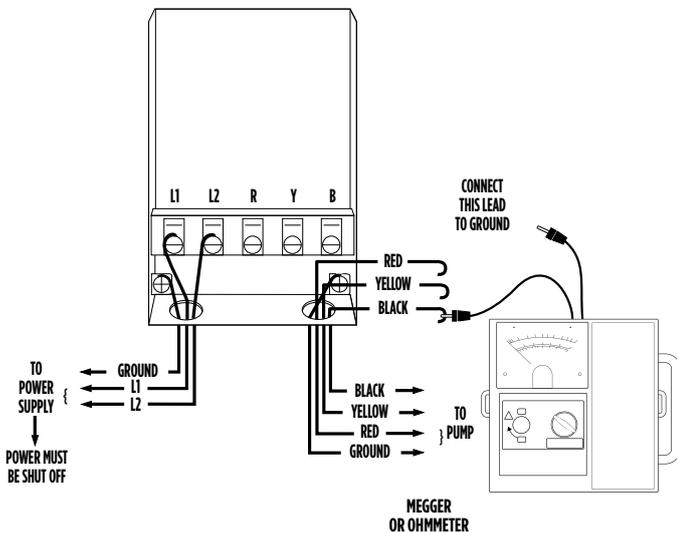


All Motors

MAINTENANCE

TABLE 32 Preliminary Tests - All sizes Single and Three-Phase

Test	Procedure	What it Means
Insulation Resistance	<ol style="list-style-type: none"> 1. Open master breaker and disconnect all lead from control box or pressure switch (QD type control, remove lid) to avoid electric shock hazard and damage to the meter. 2. Set the scale meter to R X 100K and set the ohmmeter on zero. 3. Connect one ohmmeter lead to any one of the motor leads and the other lead to the metal drop pipe. If the drop pipe is plastic, connect the ohmmeter lead to ground. 	<ol style="list-style-type: none"> 1. If the ohms value is normal (Table 33), the motor is not grounded and the cable insulation is not damaged. 2. If the ohms value is below normal, either the windings are grounded or the cable insulation is damaged. Check the cable at the well seal as the insulation is sometimes damaged by being pinched.
Winding Resistance	<ol style="list-style-type: none"> 1. Open master breaker and disconnect all leads from control box or pressure switch (QD type control, remove lid) to avoid electric shock hazard and damage to the meter. 2. Set the scale lever to R X 1 for values under 10 ohms. For values over 10 ohms, set the scale lever to R X 10. "Zero" the ohmmeter. 3. On 3-wire motors measure the resistance of yellow to black (Main winding) and yellow to red (Start winding). <p>On 2-wire motors measure the resistance from line to line.</p> <p>Three-phase motors measure the resistance line to line for all three combinations.</p>	<ol style="list-style-type: none"> 1. If all ohms values are normal (Tables 13, 16 & 17), the motor windings are neither shorted nor open, and the cable colors are correct. 2. If any one value is less than normal, the motor is shorted. 3. If any one ohm value is greater than normal, the winding or the cable is open, or there is a poor cable joint or connection. 4. If some ohms value is greater than normal and some less on single-phase motors, the leads are mixed. See Page 34 to verify cable colors.



	3 Wire			PSC
	AUST	EUR	USA	EUR
Main / Run Winding	Blue	Blue/Grey	Black	Blue/Grey
Start / Aux Winding	White	Black	Red	Brown
Common	Red	Brown	Yellow	Black