

OPERATOR'S MANUAL

Models B140G & E140G

Serial Number 550,640 +

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Introduction

Thank you for purchasing a Kifco Water-Reel!

Please read this manual carefully and watch the operator's video to learn how to operate and service your Water-Reel properly before operating your machine for the first time. Failure to do so can result in personal injury and/or property damage.

If you have any problems or are unclear regarding any of the instructions contained herein, contact your local dealer or Kifco prior to operation.

Record the model & serial number of your machine in a safe location. Should you ever require product support assistance from our factory; the process will be much quicker if you have this information available.

This manual is a permanent part of your Water-Reel and should always be available for reference by the operator. This manual should remain with the Water-Reel at all times. Additional copies of this manual are available on our website at www.kifco.com.

Measurements

In this manual all measurements are in U.S. SAE units unless otherwise noted.

Warranty

A standard Kifco Water-Reel warranty is provided. Please see the specific warranty statement in this manual for full details. Neither Kifco Dealers nor their representatives are authorized to make exceptions to any warranty policy. Any deviations from the standard warranty require written authorization from Kifco, Inc.

The warranty specifically excludes:

- Alterations or modifications to any part of your new machine not previously approved by Kifco in writing.
- Irrigation tube that is longer, larger in diameter, or made from non-approved materials will void the warranty on the entire machine.
- Damage caused by normal wear, accident, lack of reasonable care and maintenance, neglect or abuse.
- Normal wear items such as belts, gaskets, brake bands, etc. unless these parts are known to be defective.
- Transportation, mailing, service call, diagnostic costs.
- Labor for repairs is also excluded unless unusual circumstances exist and then only if pre-approved.

Current Parts & Operator's Manuals are always available online at www.kifco.com.

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Safety

Owner's Responsibilities

The owner is responsible for the safe operation of this product. The important safeguards and instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense and caution should be used at all times by all operators to prevent damage or injury to the operator.

The owner is responsible for:

- Reading and understanding this manual. If any instructions remain unclear contact your local dealer or Kifco for further instructions.
- Operating the machine strictly according to prescribed limitations.
- Properly training others who may be permitted to operate the machine.
- Heed the rules of safety, including but not limited to those in these instructions.
- Exercising good judgment relating to safe operation and safe conduct by operators and spectators whether invited or not.
- Always bringing the safety decals and placards on the machine to the attention of operators and spectators.
- **Keeping all shields and guards in place!**

Read and Heed The Special Messages!

This safety alert symbol is used to indicate messages related to safety. When you see this safety symbol, obey the safety message to avoid personal injury, property damage, or both.

A **“Caution”** message in this manual or on a machine placard means that you could be injured and/or equipment or property may be damaged if you do not follow instructions.

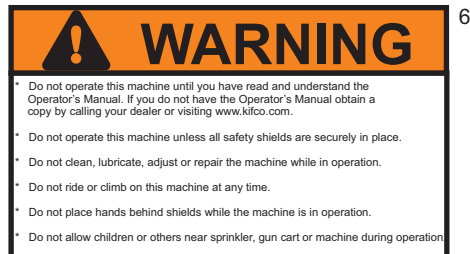
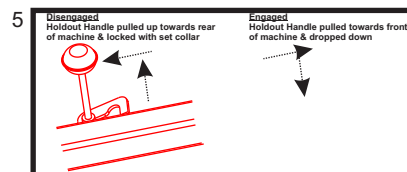
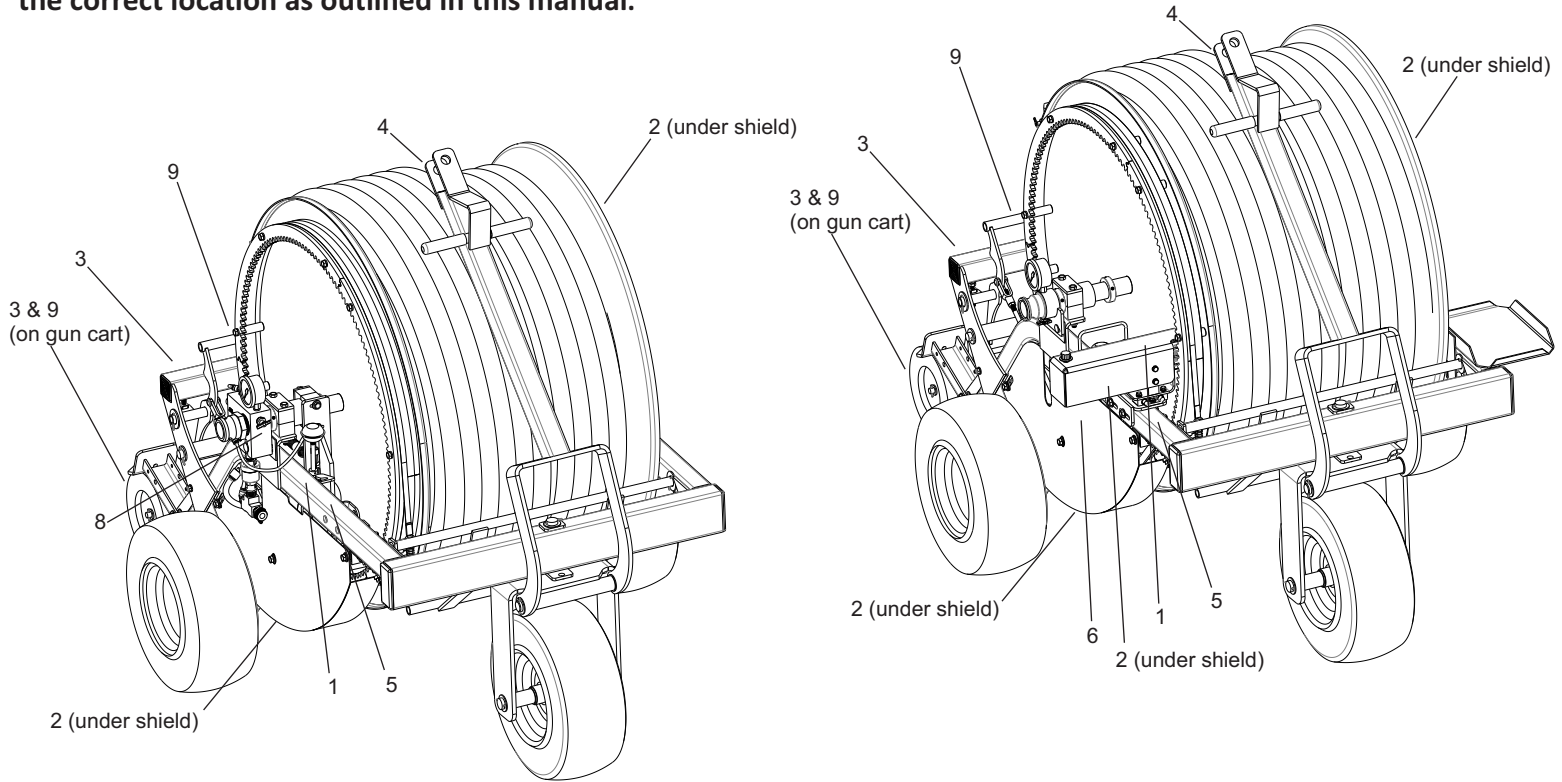
A **“Warning”** message in this manual or on a machine placard means that a hazard exists that could result in severe personal injury or death.

A **“Danger”** message in this manual or on a machine placard means that a hazard exists that will result in severe personal injury or death.



Safety Decals

All Water Reels are supplied with a variety of safety decals. These decals must be properly maintained, including replacing any that become illegible or are missing. When replacing safety decals, make sure to install them into the correct location as outlined in this manual.



Safety Precautions

Learn To Be a Safe Operator

Read This Manual

- Know the controls on the Water-Reel and how to stop the water supply.
- Do not allow anyone to operate this Water-Reel without proper instruction.

General Precautions

- **Never attempt to service the Water-Reel while it is operating.**
- **Never attempt to make adjustments to the equipment while it is operating.**
- Perform recommended maintenance at suggested intervals.
- Be certain the stabilizer legs are securely positioned before guncart pullout.

Protect Children

- Do NOT allow children to operate the Water-Reel.
- Keep children away while operating the Water-Reel.
- Do not allow children to operate the tractor that is positioning the Water-Reel.
- Never allow children to climb or ride on the machine at any time.

Use Caution Around Pressurized Lines

- For your own protection, always take care when working with or around pressurized equipment. Shut off the pump before working with any components. This includes the pump, supply lines, machine or any related equipment.
- Be sure the pressure is relieved from any supply line before it is disconnected.
- When the automatic sprinkler shut-off is used, pressurized water may be trapped in the system tube.
- Never service the equipment while it is pressurized or in operation.

Stay Away from Operating Sprinklers

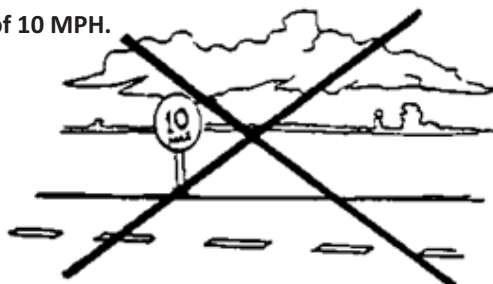
Stay away and keep others away from the sprinkler head during operation. Pressurized water from a sprinkler can inflict serious injury to bystanders.

Transporting Your Water-Reel

Caution! Never transport your Water-Reel unless the Anti-Reverse Pawl is in the down position. The Pawl should always be in the down position EXCEPT on guncart pullout!

Your Water-Reel is not intended for highway towing and should never be towed in excess of 10 MPH.

Your Water-Reel is not intended for highway towing and should never be towed in excess of 10 MPH.



Maximum Towing Speeds

10 MPH on SMOOTH Surfaces
3 MPH on ROUGH Surfaces

Safety Precautions

Learn To Be a Safe Operator

Keep Hands and Clothing Away

- Do not reach into any part of the Water-Reel while it is in operation.
- All operators and spectators should keep a safe distance from all moving parts during operation.



Keep All Guards and Shields in Place

- Never Operate this Machine with Safety Guards Removed!
- Should a shield or guard become damaged or lost, replace it prior to operation.

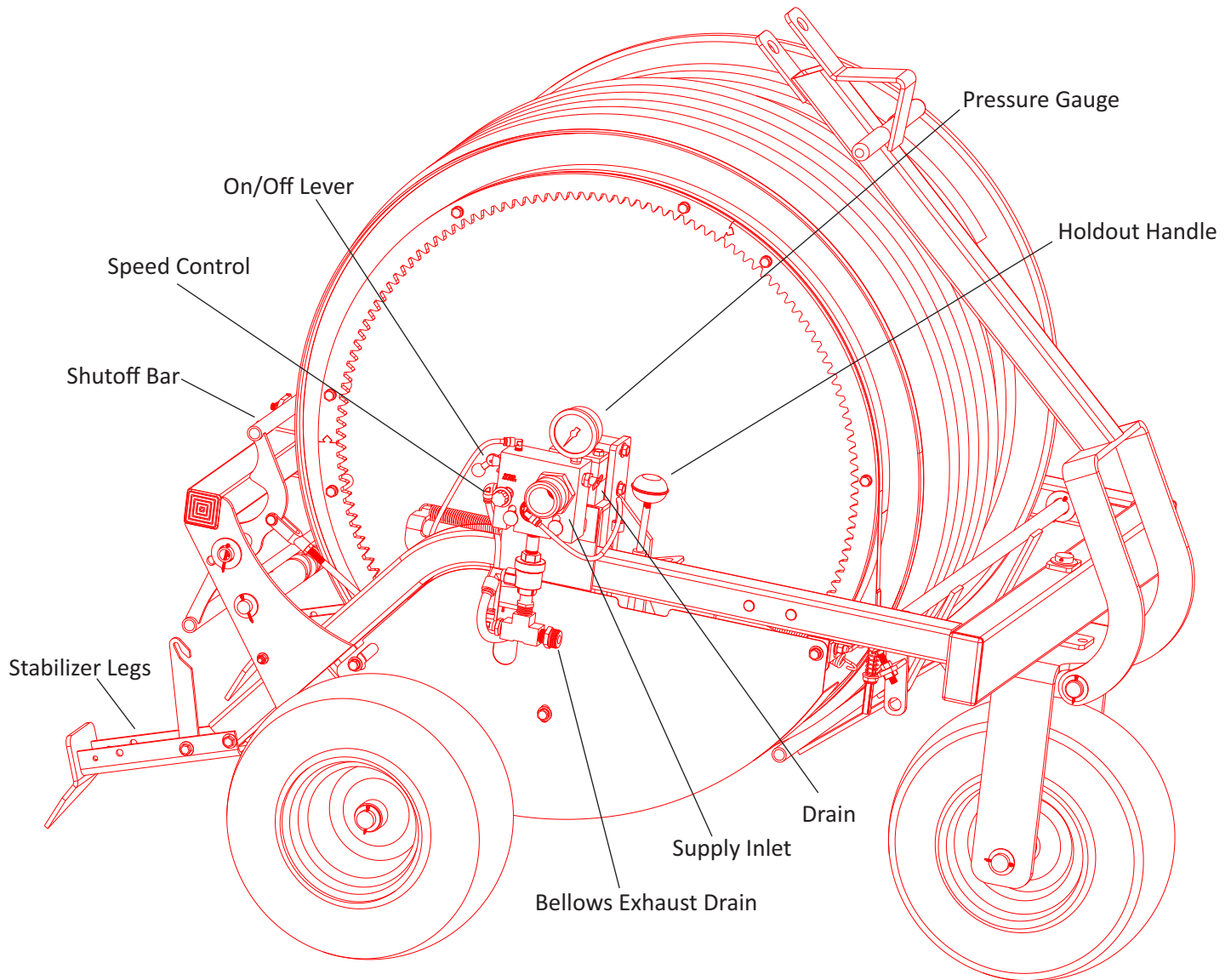


Stay Away From Power Lines

Avoid letting water contact power lines. Be careful not to contact power lines with irrigation pipe or mechanical equipment while operating or transporting you Water-Reel.



B140G Components



Stabilizer Legs - Secures the machine in a stationary position for tube pull out and retraction

Shutoff Bar - Controls the bellows cycling shut off at the end of an irrigation run or in case of tube mis-wrap

Speed Control - Controls the retraction speed

Bellows Exhaust Drain - Sends the bellows exhaust water away from the machine

On/Off Lever - Turns the water supply to the water motor on and off

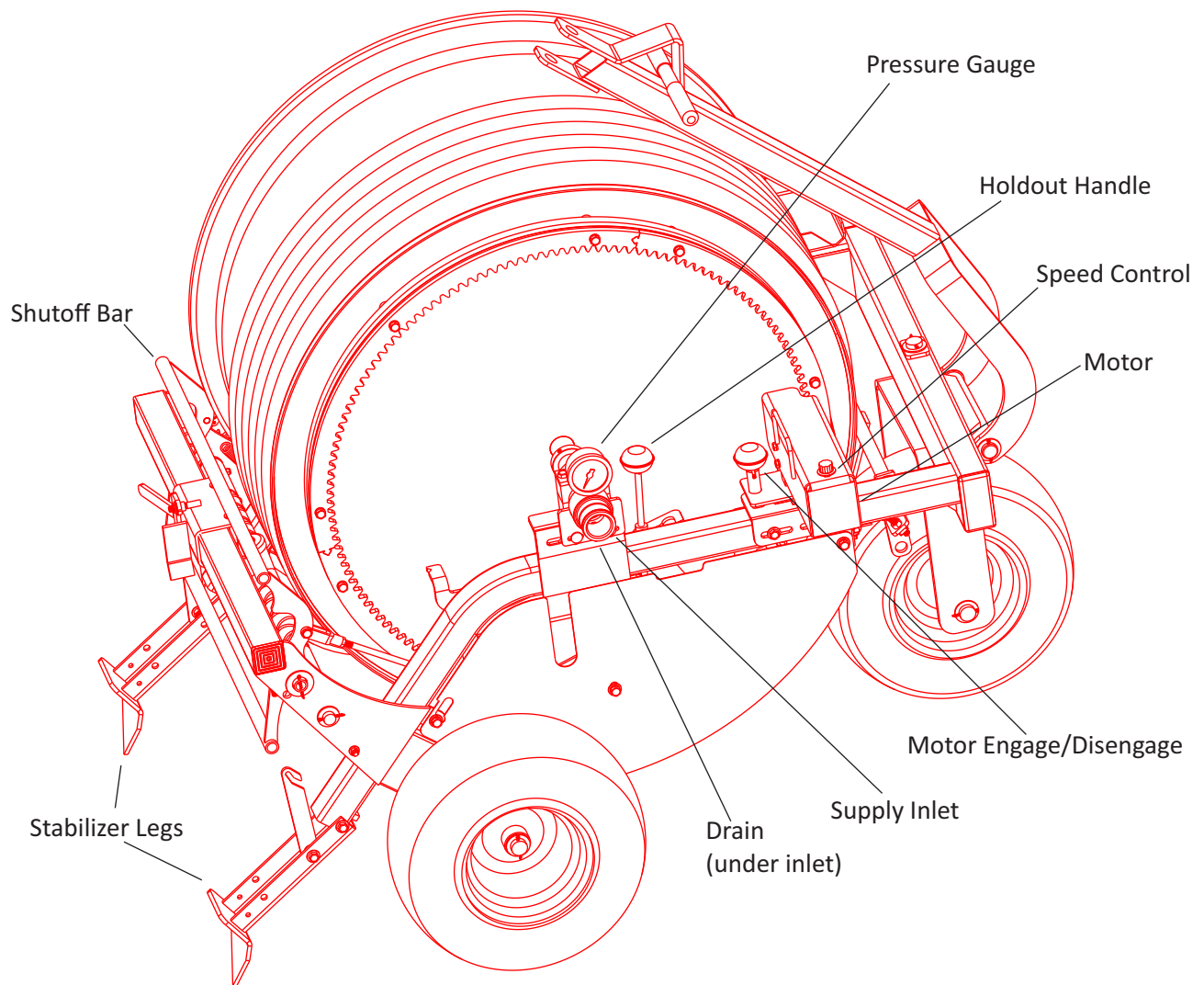
Pressure Gauge - Displays inlet pressure

Drain - Used to relieve pressure from the supply hose and to winterize

Holdout Handle - Used to disengage both the drive and hold pawl for the tube pull out

Supply Inlet - Used to attach the supply hose to the machine

E140G Components



Stabilizer Legs - Secures the machine in a stationary position for tube pull out and retraction

Shutoff Bar - Controls the motor shut off at the end of an irrigation run or in case of tube mis-wrap

Speed Control - Controls the retraction speed

Pressure Gauge - Displays inlet pressure

Drain - Used to relieve pressure from the supply hose and to winterize

Holdout Handle - Used to disengage the hold pawl for the tube pull out

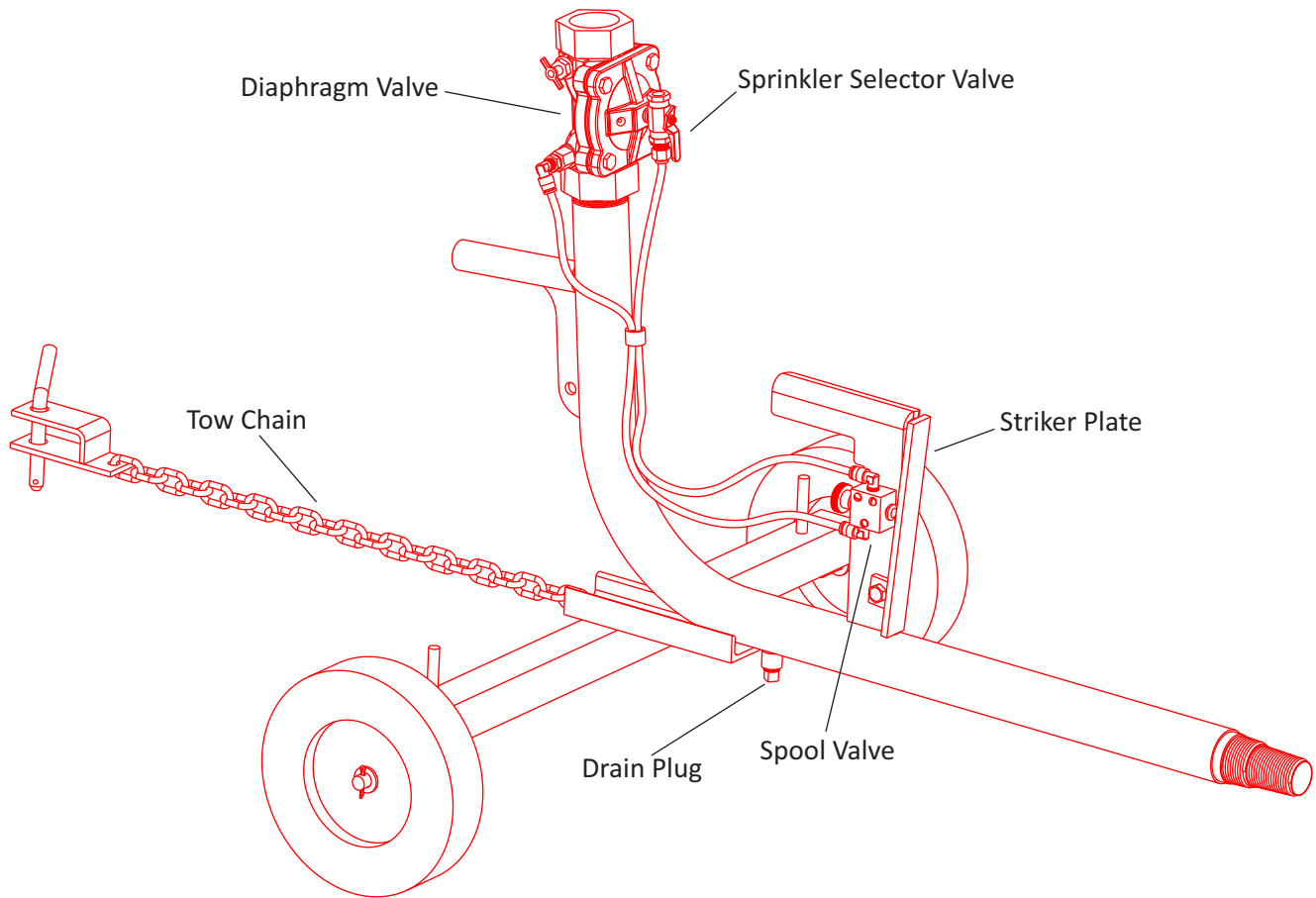
Motor - Electric 12V Motor

Motor Engage/Disengage - Engages the pinion gear into place to drive, and away from drive ring gear for pull out

Supply Inlet - Used to attach the supply hose to the machine

NOTE: The E140G is designed to run on a 12V DC source. Although not necessary; it is recommended to use a deep cycle battery. Deep cycle batteries provide a steady amount of current over a long period of time. The factory wire connection for the battery is set up to use a "marine post adaptor" set.

Gun Cart Components



Tow Chain - Used for pulling out the gun cart for an irrigation run

Diaphragm Valve - Controls water flow to the sprinkler

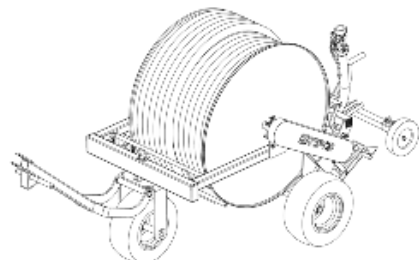
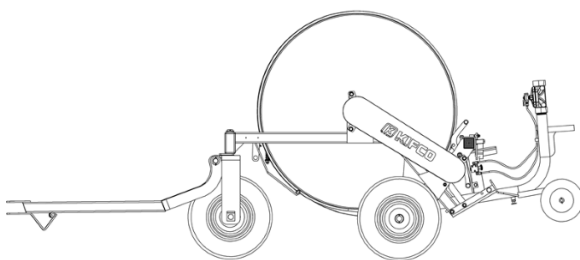
Sprinkler Selector Valve- Controls the option of shutting the water off to the sprinkler after an irrigation run

Spool Valve - Supplies water pressure to activate the diaphragm valve

Striker Plate - Activates spool valve at the end of an irrigation run

Transport Options

Your Water-Reel can be towed with a small implement towing or transported by hand.



Handling the Polyethylene Tube

The polyethylene irrigation tube is a durable product that will operate reliably for many years if handled properly and given a reasonable amount of care.

Medium Density Polyethylene is a semi-rigid product that retains its shape when it is not pressurized but can also be wound on a drum or spool without damage. This characteristic makes it feasible to pump fluid through it while it is rolled up on a reel.

A few simple precautions need to be observed to prevent damaging the tube when operating your Water-Reel.

1. **When starting a new Water-Reel for the first time, you must pull the tube all the way out in order to correctly tighten the new tube on the spool. It is also important to follow the timing Instructions on Pages 32-33 of this manual.**
2. **Never transport the Water-Reel with the Pawl Disengage Rod in the up position! The tubing will become loose and tangled.** Do not attempt to operate your Water-Reel if there are any coils of tube that are loose or misplaced. If loose coils of tube are noticed, they must be tightened by rotating the spool by hand. If this is not possible, pull all of the tube out before attempting to rewind the tube.
3. Never try to move or relocate the machine if the tube is not fully rewound onto the machine.
4. Never pull the tube off the machine other than by pulling on the sprinkler cart (straight out from the machine).
5. Never run over the tube with any kind of vehicle and avoid pinching or pulling the tube around objects. Never bend the tube sharper than 25 times the inner diameter of the tube (See page 12).
6. If the tube is frequently pulled out only a portion of its complete length the tube remaining on the drum will become loose. Occasionally it will be necessary to pull all the tube off the drum to tighten the remaining coils.

Be careful when operating other equipment near the tube. Make sure the tube doesn't get gouged or punctured.

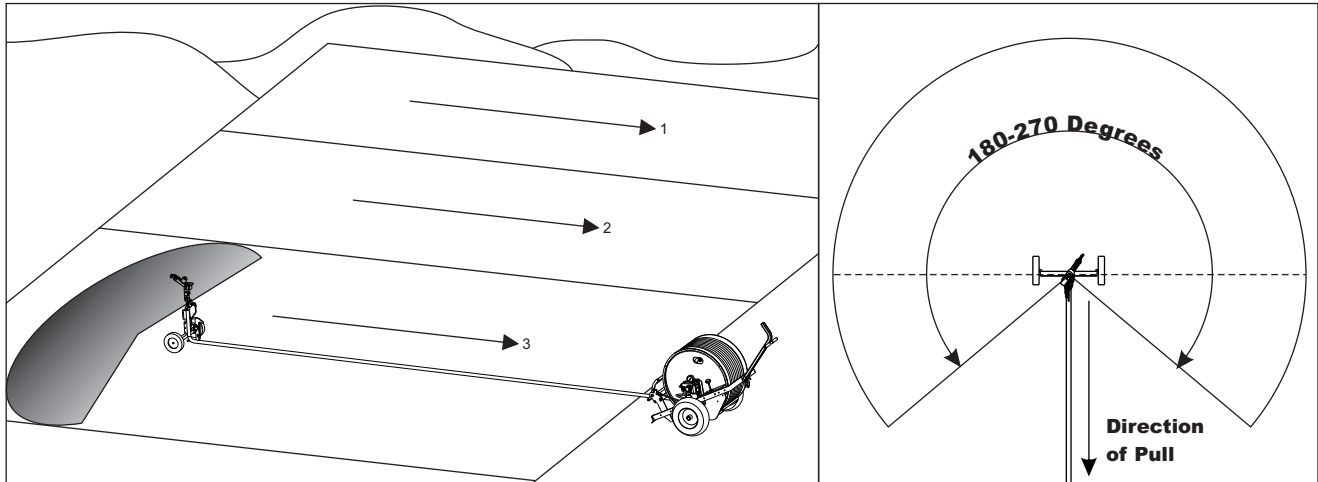
REMEMBER, polyethylene tube is semi-rigid and subject to being kinked. Those foregoing precautions will reduce the possibility of kinking or damaging your tube. Throughout the irrigation industry the words 'tube' and 'hose' are used interchangeably in connection with hard hose traveling machines.

Water-Reel Start-Up & Operation

The success of the Water-Reel irrigation system depends a great deal on the operator's understanding of the proper pull out and start up procedure. Do not attempt to operate this Water-Reel until you read and understand the preceding section titled "Handling the Polyethylene Tube"! Decide on the proper nozzle size to be used for the irrigation run which thus will also determine the irrigation lane spacing that will be needed (see pages 20 & 21 for sprinkler performance).

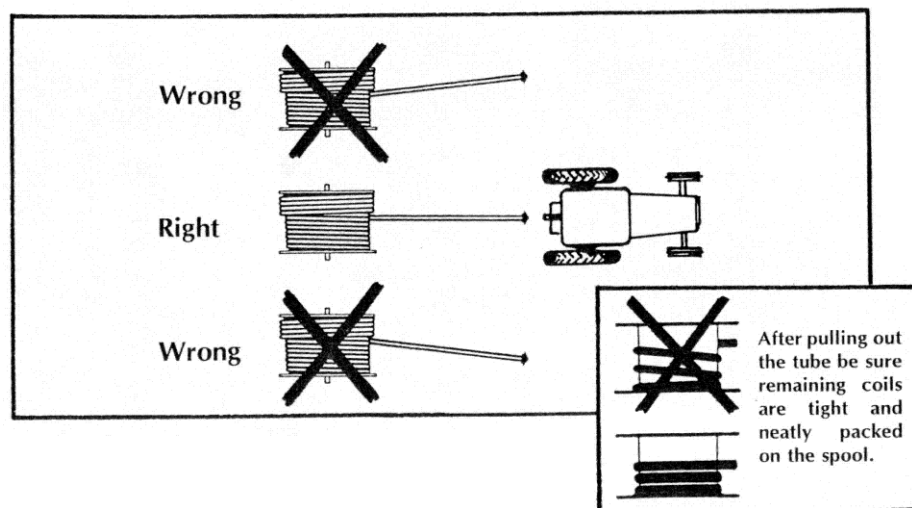
Set the desired arc to be used on the sprinkler gun.

NOTE: Arc settings where the sprinkler never distributes water forward of the gun cart (towards pull), could create undesired tracking results. This is caused by the continuous thrust of the sprinkler, which pushes the tube towards the Water-Reel. It is recommended that the arc be set to create some tension on the tube greater than 180°).



Note: Your Kifco Water-Reel is equipped to irrigate on a gradual arc if necessary. Arced irrigation can only be performed after the first 25% of the tube is pulled out straight from the machine and then the gradual arc cannot exceed 90 degrees over the remaining 75%. Depending on the soil or vegetation the gun cart may or may not follow the arc back to the machine. Higher friction (furrows, tall grass) will greatly assist with the gun cart tracking the arc.

Failure to observe this limitation can also place an excessive side load on the Level-Wind mechanism which could result in equipment failure and/or tube damage.

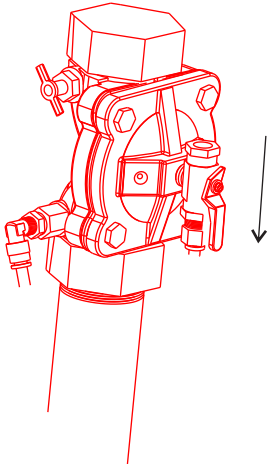


Water-Reel Start-Up & Operation

This machine is equipped with an optional water shutoff system that can be set in either the On or Off position (see below diagram). The sprinkler control valve will only operate automatically if the Spool Valve has been reset (see below diagram).

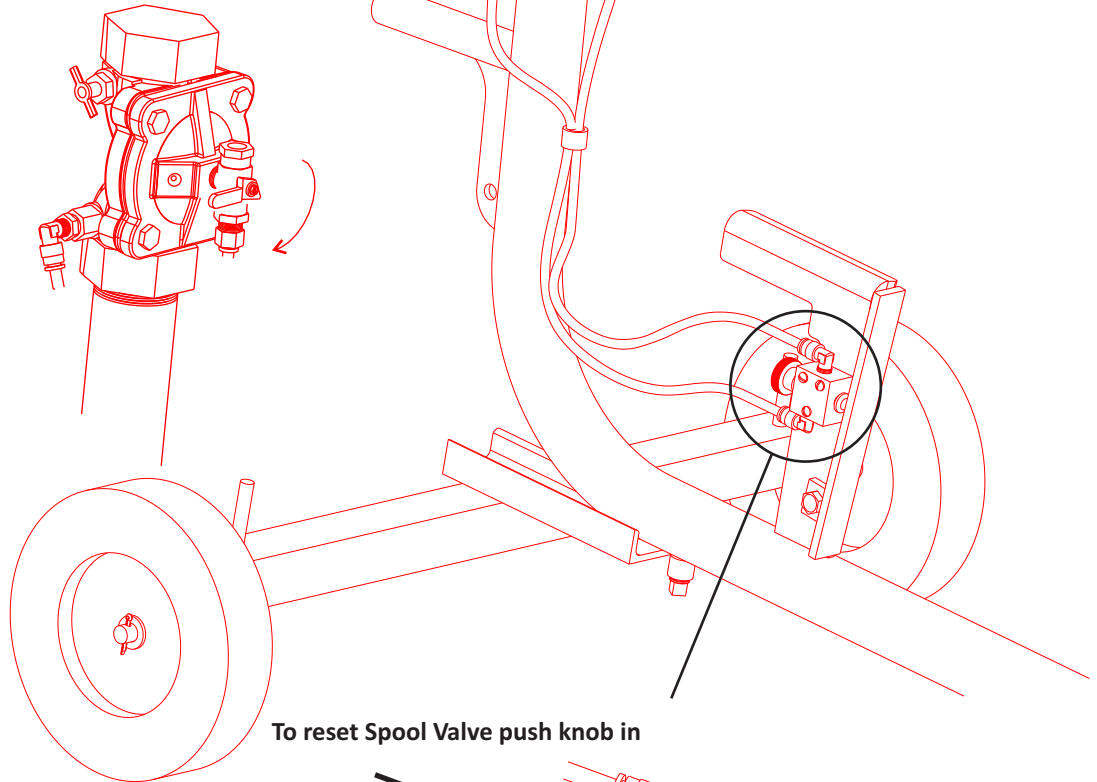
Sprinkler Flow Selection Valve "OFF"

(Sprinkler gun will shut off after the irrigation run)



Sprinkler Flow Selection Valve "ON"

(Sprinkler gun will continue to operate after the irrigation run)



Note: Spool Valve must be reset before each irrigation run.

*The Spool Valve is a stem valve located on the Gun Cart of the Water-Reel.

This must not be used as an ON/OFF valve for any purpose other than to automatically shut-off the sprinkler at the completion of an irrigation run.



Important

When using the automatic water shutoff feature, be sure the water can be shut off automatically without damaging the water supply or the Water-Reel! Stopping the flow of water can damage a pump or water lines and excessive pressure can be created. A qualified person should confirm if you could safely utilize the automatic water shut-off.

Water-Reel Start-Up & Operation

Ensure that the Holdout Handle is disengaged (lower position) for transport. Pull the Water-Reel into position with the Gun Cart towards the run to be irrigated. Be especially careful to have the machine square and in good alignment with the irrigation path. Lower the Stabilizer Legs and confirm they have made good ground contact. Never attempt to operate the Water-Reel without both legs inserted into the ground.

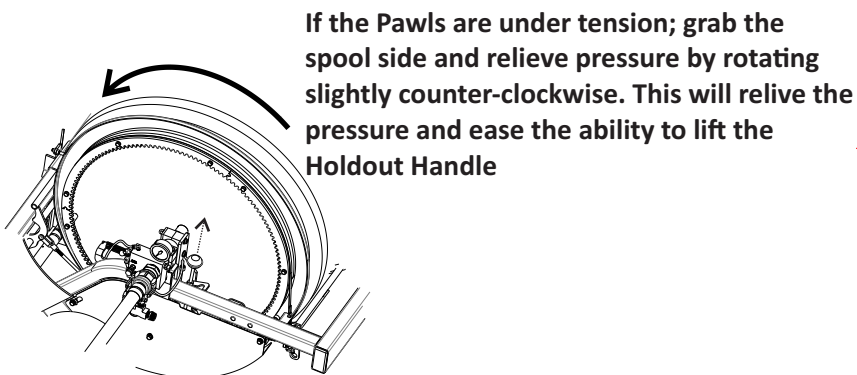
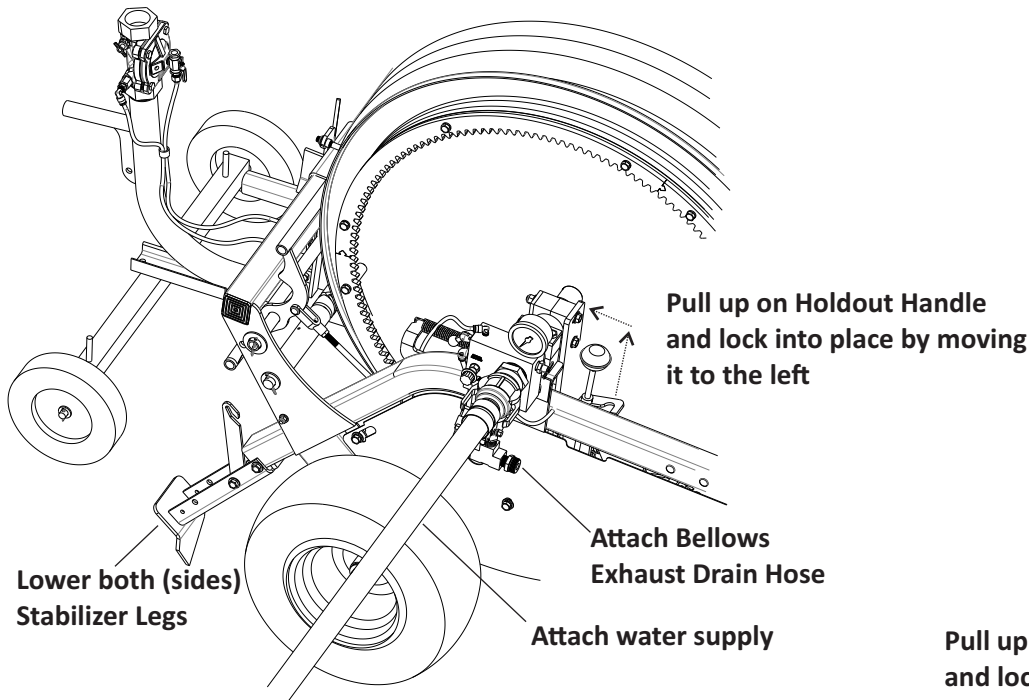
Attach the water supply line to the machine to confirm that all lines reach and the Water-Reel is set in the proper place. Do not turn on the water.

B140G (bellows drive) Only - Un-stow and attach the Bellows Exhaust Drain Hose to the Bellows Exhaust Discharge. Confirm that the Drain Hose is not kinked or blocked.

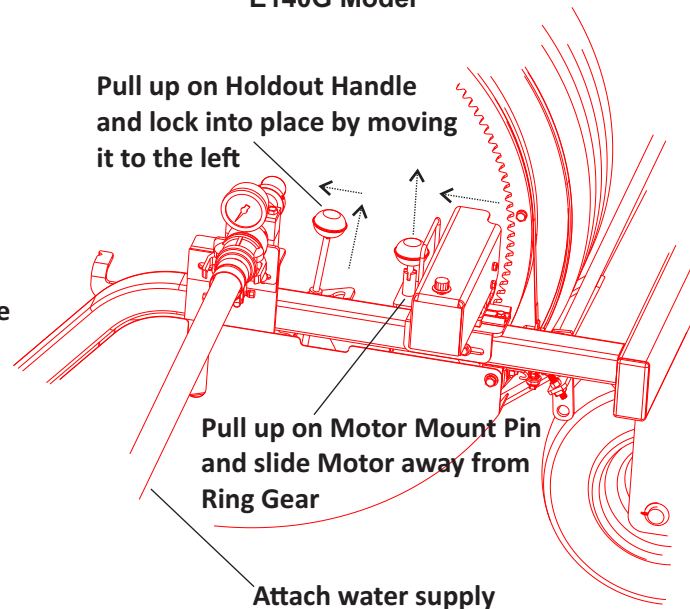
E140G Electric Motor Drive Machines Only - ***MUST*** have the Drive Pinion on the Motor **disengaged** prior to pull out. To disengage: pull the Motor Mount Pin and slide the Motor away from the Ring Gear.

Disengage the Pawl(s) by pulling up on the Holdout Handle into the back position (move up and to the left). If the Pawls do not disengage the gear easily; rotate the Spool forward (counterclockwise) to relieve tension on the Drive Pinion or Drive Pawl. Both Pawls (two on Bellows Drive & one on Electric Motor Drive) must clear the Ring Gear on the Spool.

B140G Model

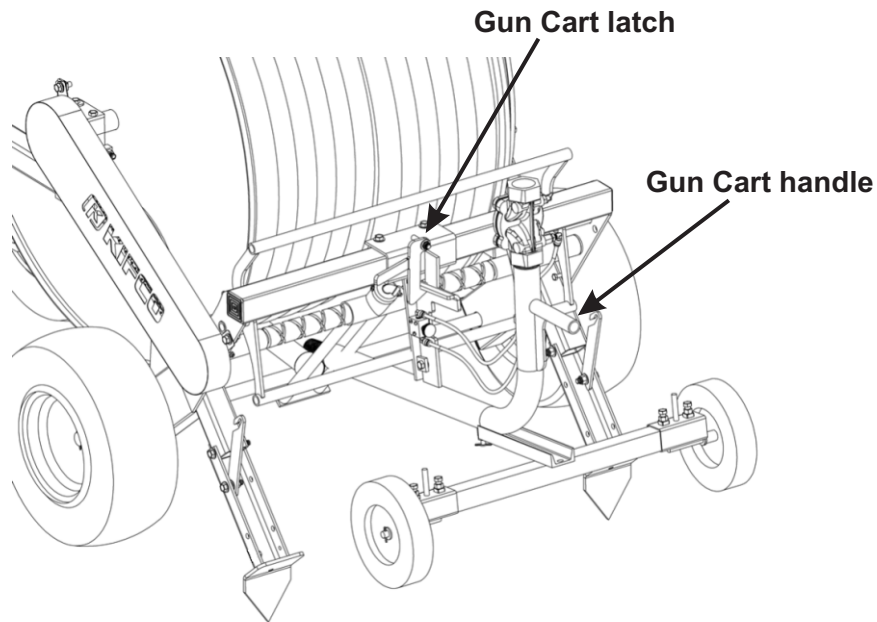


E140G Model



Water-Reel Start-Up & Operation

Lower the Gun Cart from its transport position by lifting slightly on the gun cart handle and releasing the latch.

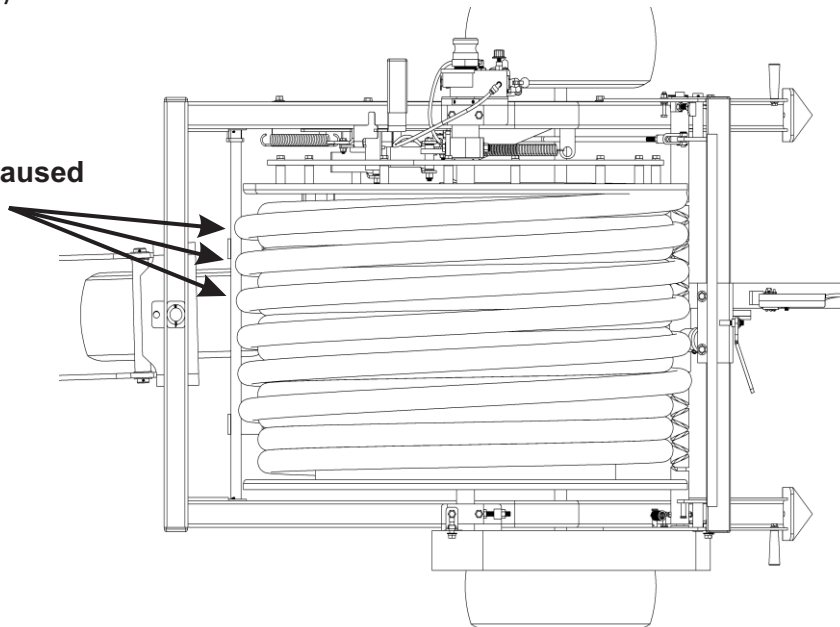


Pull the Gun Cart out the desired distance. Pull the tube out slowly (do not exceed 3 mph) and avoid sudden stops and erratic driving during pull out.



IMPORTANT: If the standard irrigation run does not require the use of 100% of the tube on the Water-Reel; it will be necessary to occasionally pull the entire length of tube off of the Water-Reel and retract the tube under pressure to ensure the concentric shape of the tube. During short runs of the Water-Reel, the remaining tube on the spool will tend to gradually loosen. Over time, gaps in the tube on the spool will create Level Wind to tube mis-alignment causing the machine to become out of time or the possibility of the tube mis-wrapping causing damage to the Water-Reel and the tube. This can be corrected by making a full run (pull 100% of the tube out) occasionally.

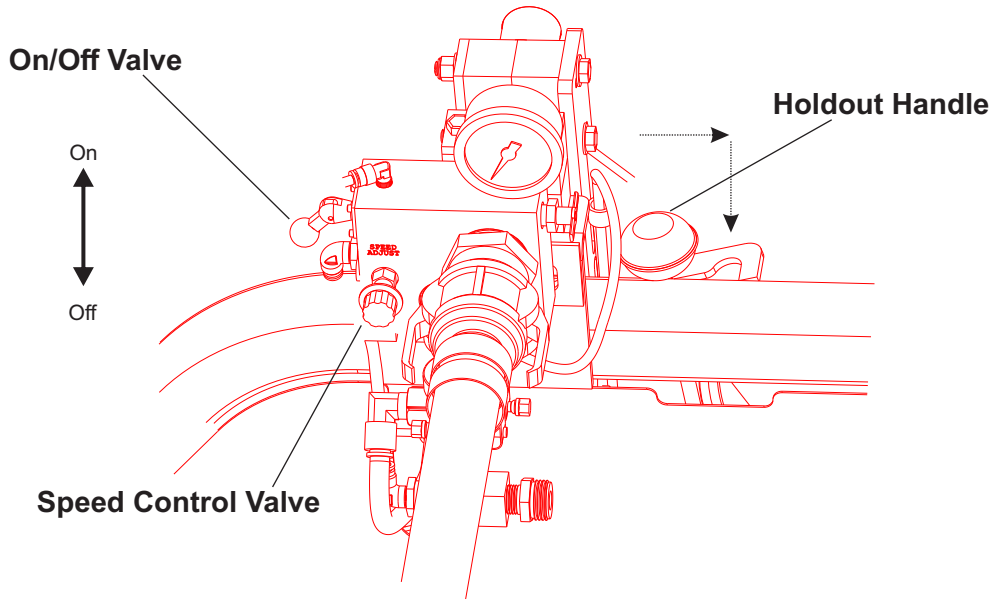
Gaps in tube caused by short runs



B140G Bellows Drive Operation

Be sure the ON/OFF Valve is in the "OFF" position (lever down). Engage the drive system by (pulling up & over) dropping the Holdout Handle fully down. Turn on the water. Confirm the sprinkler is operating as expected and in the desired arc. After all air is purged from the system and the sprinkler is operating smoothly, turn the ON/OFF Valve to the "ON" position (lever up). Set the Speed Control Valve to the desired retraction speed.

The Speed Control Valve, located on the valve assembly, regulates the speed at which water can fill the Bellows.



Note: The Water- Reel requires 45 Pounds Per Square Inch (PSI) and adequate water flow capacity (GPM) to operate properly. Consult your Kifco dealer if you do not have an adequate water supply.

Observe water pressure, travel speed, and sprinkler performance to confirm desired performance. See pages 20 or 21 for performance charts.

When the Gun Cart completes the irrigation run and has contacted the Shut Off Bar, the retraction of the tube will stop.

With the irrigation run completed, turn off water supply. Relieve pressure first by opening the Drain and disconnect the Supply Hose. Remove and store the Bellows Exhaust Drain Hose.

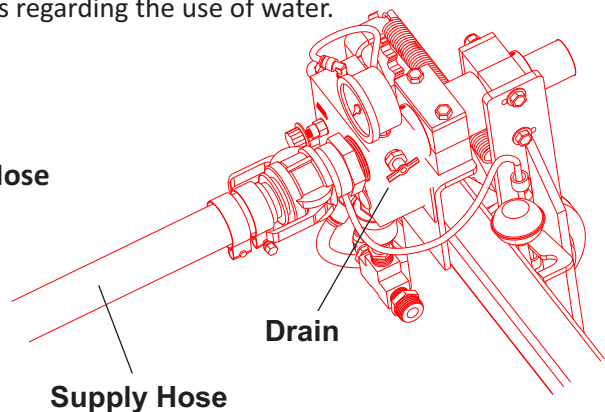
Lift & latch the Gun Cart into its transport position. Pull the Water-Reel forward to relieve pressure on the Stabilizer Legs. Lift & latch both Stabilizer Legs into transport position.

The Water-Reel is now ready to be moved and set up in a new location.

Note: Some municipalities prohibit the use of water mains intended for fire protection and there may also be requirements for back-flow prevention. Investigate and obey all local regulations regarding the use of water.

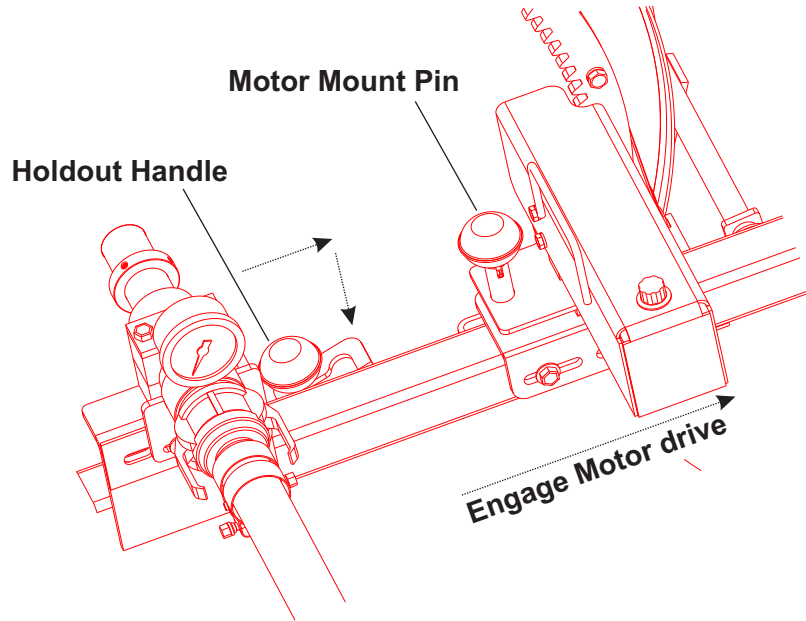


Important
Open Drain to relieve pressure on Supply Hose
after turning off water supply

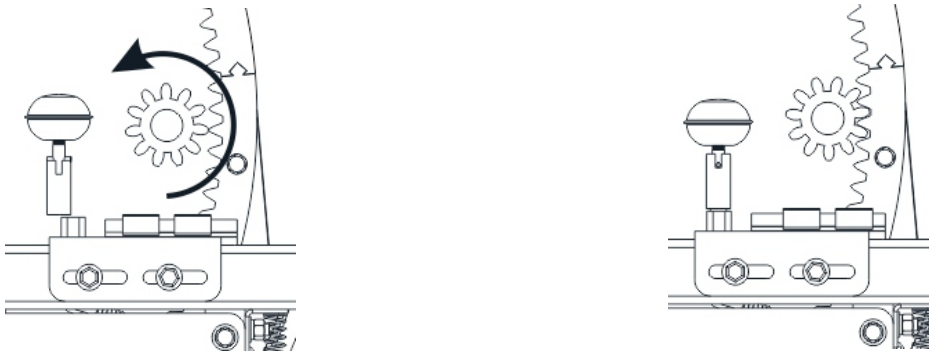


E140G Electric Drive Operation

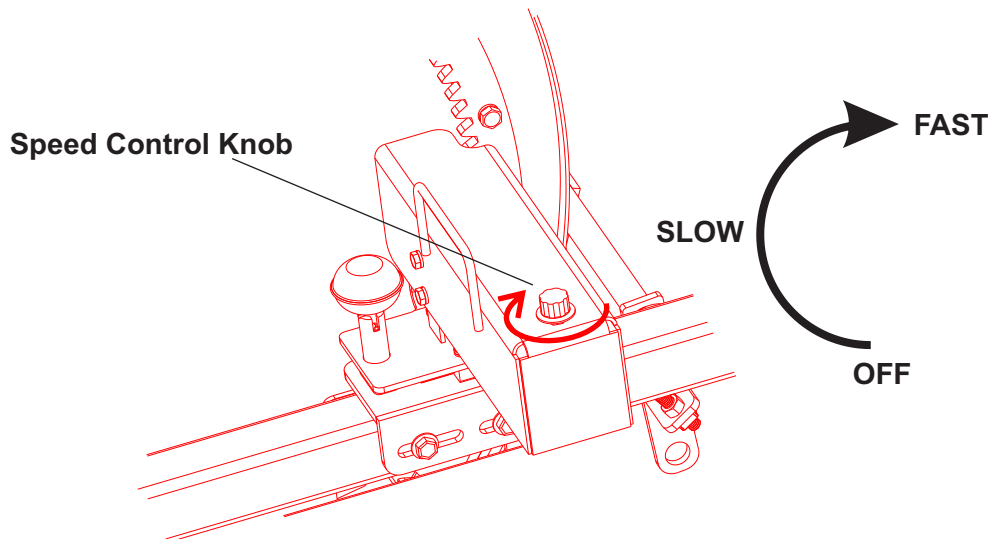
With the water supply off; disengage the Holdout Handle by (pulling up & over) dropping the Holdout Handle fully down. Pull up on the Motor Mount Pin and engage the Motor Drive Pinion into the Ring Gear. Drop Motor Mount Pin into locking position



Note: in most instances it will be necessary to turn the motor on (briefly) in order for the Drive Pinion to mesh with the Ring Gear.



Turn on the water supply. Confirm the sprinkler is operating as expected and in the desired arc. Wait for all of the air to be purged from the system and for the sprinkler to operate smoothly. Set the Speed Control Knob to the desired retraction speed.



E140G Electric Drive Operation

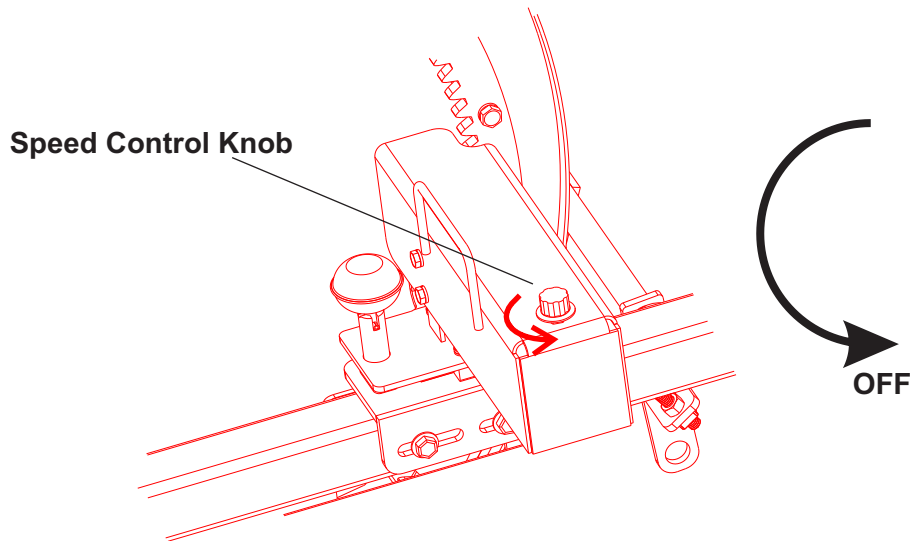
When the Gun Cart completes the irrigation run and has contacted the Shut Off Bar, the retraction of the tube will stop.

With the irrigation run complete, turn off the water supply, relieve the pressure and disconnect Supply Hose. Turn the Speed Control Knob all the way off (counterclockwise).

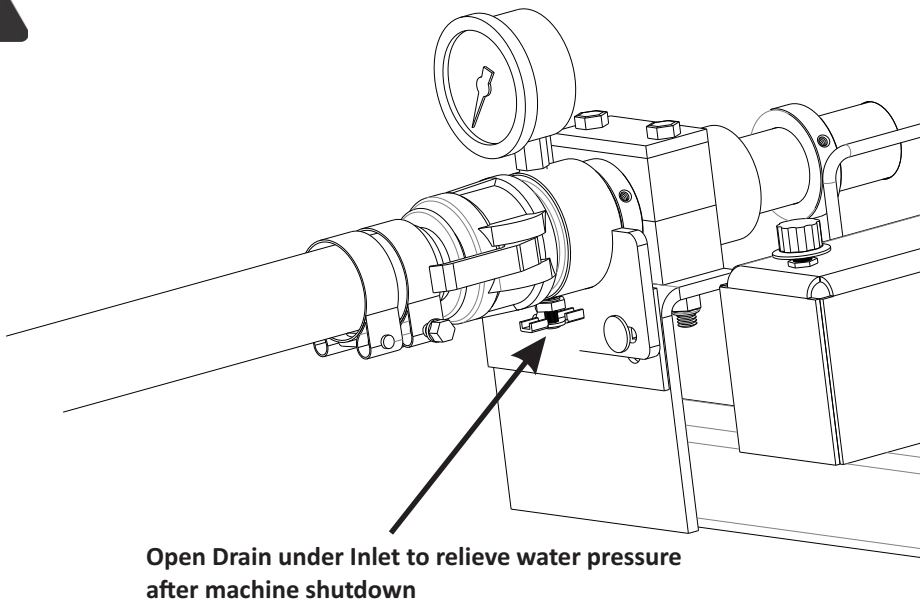
Lift & latch the Gun Cart into its transport position. Pull the Water-Reel forward to relieve pressure on the Stabilizer Legs. Lift & latch both Stabilizer Legs into transport position.

The Water-Reel is now ready to be moved and set up in a new location.

Note: Some municipalities prohibit the use of water mains intended for fire protection and there may also be requirements for back-flow prevention. Investigate and obey all local regulations regarding the use of water.



Important
Open Drain to relieve pressure on Supply Hose after turning off water supply



Water Application Rate & Travel Speed

Depth Of Water Applied:

The depth of water applied by the Water-Reel is regulated by the retraction speed (speed the sprinkler is moving over the ground). It is also affected by the amount of water being discharged by the sprinkler head. The sprinkler nozzle size and the water pressure determine the amount of discharged water. These two factors are determined by the available water and the capability of the water pump at the water supply. The selection of the sprinkler nozzle needs to be made based on the water supply and pump performance.

Travel Speed Settings - Using the Performance Guide:

Example: With a Nelson SR75 sprinkler, determine the inlet pressure, speed settings and sprinkler nozzle size required to apply 0.35 - 0.37 inches of water. (See Illustration)

Note: The inlet PSI is the pressure reading while the machine is running and the sprinkler is operating. If the pressure drops while running, use the chart to determine the performance at the new inlet pressure. If the pressure drops below the lowest inlet pressure shown, consider using a smaller size nozzle. (Inlet PSI is always read at the Water Reel)

As shown below, a variety of settings can accomplish 0.35 - 0.37 inches of water application.

*With a .4" nozzle and an inlet PSI of 53; 0.36" can be applied at a rate of 60ft. per hour.

*With a .4" nozzle and an inlet PSI of 106; 0.37" can be applied at a rate of 70ft. per hour. *Example shown below*

* With a .45" nozzle and an inlet PSI of 53; 0.36" can be applied at a rate of 70ft. per hour.

* With a .5" nozzle and an inlet PSI of 62; 0.35" can be applied at a rate of 85ft. per hour.

Variances with inlet pressures and nozzle sizes will give different application speed rates and irrigated areas.

		MODEL B			140G	X	350	PERFORMANCE												
MODEL B140G X 350' NELSON SR75	Nozzle size	SPRINKLER			Irrigated Width 80% Wetted Diameter			INLET PSI	TRAVEL SPEED - FEET PER HOUR											
		PSI	GPM	DIA	WIDTH		LENGTH		20	30	40	50	60	70	75	85				
									INCHES DEPTH OF APPLICATION											
	.4"	40	27	149	119	X	410	53	1.09	0.73	0.55	0.44	0.36	0.31	0.29	0.26				
	.4"	80	39	182	146	X	423	106	1.29	0.86	0.64	0.52	0.43	0.37	0.34	0.30				
	.45"	35	32	154	123	X	412	53	1.25	0.83	0.63	0.50	0.42	0.36	0.33	0.29				
	.45"	80	49	207	166	X	433	120	1.42	0.95	0.71	0.57	0.47	0.41	0.38	0.34				
	.5"	35	40	164	131	X	416	62	1.47	0.98	0.73	0.59	0.49	0.42	0.39	0.35				
	.5"	80	61	222	178	X	439	139	1.65	1.10	0.83	0.66	0.55	0.47	0.44	0.39				
	.55"	35	49	172	138	X	419	75	1.71	1.14	0.86	0.69	0.57	0.49	0.46	0.40				
.55"	70	69	221	177	X	438	145	1.88	1.25	0.94	0.75	0.63	0.54	0.50	0.44					
					Hours for Full Run:				17.5	11.7	8.8	7.0	5.8	5.0	4.7	4.1				
					Avg. Strokes Per Min:				3	5	6	8	9	11	12	13				

B140G Application Charts

		MODEL B			140G X 350		PERFORMANCE													
MODEL B140G X 350' NELSON SR75	Nozzle size	SPRINKLER			Irrigated Width 80% Wetted Diameter		INLET	TRAVEL SPEED - FEET PER HOUR												
		PSI	GPM	DIA	WIDTH	LENGTH		PSI	20	30	40	50	60	70	75	85				
	INCHES DEPTH OF APPLICATION																			
	.4"	40	27	149	119	X	410	53	1.09	0.73	0.55	0.44	0.36	0.31	0.29	0.26				
	.4"	80	39	182	146	X	423	106	1.29	0.86	0.64	0.52	0.43	0.37	0.34	0.30				
	.45"	35	32	154	123	X	412	53	1.25	0.83	0.63	0.50	0.42	0.36	0.33	0.29				
	.45"	80	49	207	166	X	433	120	1.42	0.95	0.71	0.57	0.47	0.41	0.38	0.34				
.5"	35	40	164	131	X	416	62	1.47	0.98	0.73	0.59	0.49	0.42	0.39	0.35					
.5"	80	61	222	178	X	439	139	1.65	1.10	0.83	0.66	0.55	0.47	0.44	0.39					
.55"	35	49	172	138	X	419	75	1.71	1.14	0.86	0.69	0.57	0.49	0.46	0.40					
.55"	70	69	221	177	X	438	145	1.88	1.25	0.94	0.75	0.63	0.54	0.50	0.44					
					Hours for Full Run				17.5	11.7	8.8	7.0	5.8	5.0	4.7	4.1				
					Avg. Strokes Per Min				3	5	6	8	9	11	12	13				

		MODEL B140G X 350						PERFORMANCE									
MODEL B140G X 350' . KOMET TWIN MAX	Nozzle size	SPRINKLER			Irrigated Width 80% Wetted Diameter			INLET	TRAVEL SPEED - FEET PER HOUR								
									20	30	40	50	60	75	85		
	PSI	GPM	DIA	WIDTH		LENGTH	PSI	INCHES DEPTH OF APPLICATION									
	0.39"	35	26	156	125	X	412	47	1.00	0.67	0.50	0.40	0.33	0.27	0.24		
	0.39"	110	47	243	194	X	447	147	1.16	0.78	0.58	0.47	0.39	0.31	0.27		
0.43"	30	29	156	125	X	412	45	1.12	0.75	0.56	0.45	0.37	0.30	0.26			
0.43"	100	54	246	197	X	448	147	1.32	0.88	0.66	0.53	0.44	0.35	0.31			
0.47"	30	35	162	130	X	415	51	1.30	0.87	0.65	0.52	0.43	0.35	0.31			
0.47"	90	61	248	198	X	449	149	1.48	0.99	0.74	0.59	0.49	0.39	0.35			
0.51"	25	37	156	125	X	412	49	1.43	0.95	0.71	0.57	0.48	0.38	0.34			
0.51"	70	63	235	188	X	444	133	1.61	1.08	0.81	0.65	0.54	0.43	0.38			
0.55"	25	43	163	130	X	415	56	1.59	1.06	0.79	0.64	0.53	0.42	0.37			
0.55"	65	70	236	189	X	444	142	1.79	1.19	0.89	0.71	0.60	0.48	0.42			
				Hours for Full Run:				17.5	11.7	8.8	7.0	5.8	4.7	4.1			
				Avg. Strokes Per Min:				3	5	6	8	9	12	13			

		MODEL B140G X 350						PERFORMANCE										
MODEL B140G X 350' SIME HYDRA	Nozzle size	SPRINKLER			Irrigated Width 80% Wetted Diameter			INLET	TRAVEL SPEED - FEET PER HOUR									
									20	30	40	50	60	75	85			
	PSI	GPM	DIA	WIDTH	LENGTH	PSI	INCHES DEPTH OF APPLICATION											
	10m	44	28	137	110	X	405	58	1.23	0.82	0.62	0.49	0.41	0.33	0.29			
	10m	58	33	148	118	X	409	77	1.34	0.89	0.67	0.54	0.45	0.36	0.32			
	12m	29	40	131	105	X	402	56	1.84	1.23	0.92	0.74	0.61	0.49	0.43			
	12m	59	56	177	142	X	421	110	1.90	1.27	0.95	0.76	0.63	0.51	0.45			
	14m	29	52	138	110	X	405	73	2.27	1.51	1.13	0.91	0.76	0.60	0.53			
	14m	59	73	190	152	X	426	142	2.31	1.54	1.16	0.92	0.77	0.62	0.54			
	16m	29	65	144	115	X	408	96	2.72	1.81	1.36	1.09	0.91	0.72	0.64			
16m	44	80	171	137	X	418	142	2.82	1.88	1.41	1.13	0.94	0.75	0.66				
Hours for Full Run:								17.5	11.7	8.8	7.0	5.8	4.7	4.1				
Avg. Strokes Per Min:								3	5	6	8	9	12	13				

		MODEL B140G X 350						PERFORMANCE									
MODEL B140G X 350' SIME K1	Nozzle size	SPRINKLER			Irrigated Width 80% Wetted Diameter			INLET	TRAVEL SPEED - FEET PER HOUR								
									20	30	40	50	60	75	85		
	PSI	GPM	DIA	WIDTH	LENGTH	PSI	INCHES DEPTH OF APPLICATION										
	8mm	44	18	125	100	X	400	50	0.87	0.58	0.43	0.35	0.29	0.23	0.20		
	8mm	58	21	135	108	X	404	66	0.94	0.63	0.47	0.38	0.31	0.25	0.22		
	10mm	44	28	135	108	X	404	58	1.26	0.84	0.63	0.50	0.42	0.34	0.30		
	10mm	58	33	144	115	X	408	77	1.37	0.91	0.68	0.55	0.46	0.37	0.32		
12mm	29	33	125	100	X	400	48	1.59	1.06	0.80	0.64	0.53	0.42	0.37			
12mm	59	47	154	123	X	412	96	1.85	1.23	0.92	0.74	0.62	0.49	0.43			
					Hours for Full Run:			17.5	11.7	8.8	7.0	5.8	4.7	4.1			
					Avg. Strokes Per Min:			3	5	6	8	9	12	13			

E140G Application Charts

		MODEL			E140G X 350		PERFORMANCE													
MODEL E140 X 350' NELSON SR75	Nozzle size	SPRINKLER			Irrigated Width 80% Wetted Diameter			INLET	TRAVEL SPEED - FEET PER HOUR											
									30	50	70	90	110	130	150	170				
	PSI	GPM	DIA	WIDTH	LENGTH	PSI	INCHES DEPTH OF APPLICATION													
	.4"	40	27	149	119	X	410	53	0.73	0.44	0.31	0.24	0.20	0.17	0.15	0.13				
	.4"	80	39	182	146	X	423	106	0.86	0.52	0.37	0.29	0.23	0.20	0.17	0.15				
	.45"	35	32	154	123	X	412	53	0.83	0.50	0.36	0.28	0.23	0.19	0.17	0.15				
	.45"	80	49	207	166	X	433	120	0.95	0.57	0.41	0.32	0.26	0.22	0.19	0.17				
	.5"	35	40	164	131	X	416	62	0.98	0.59	0.42	0.33	0.27	0.23	0.20	0.17				
.5"	80	61	222	178	X	439	140	1.10	0.66	0.47	0.37	0.30	0.25	0.22	0.19					
.55"	35	49	172	138	X	419	75	1.14	0.69	0.49	0.38	0.31	0.26	0.23	0.20					
.55"	70	69	221	177	X	438	145	1.25	0.75	0.54	0.42	0.34	0.29	0.25	0.22					
					Hours for Full Run:			11.7	7.0	5.0	3.9	3.2	2.7	2.3	2.1					

		MODEL			140G X 350			PERFORMANCE												
MODEL E140 X 350' KOMET TWIN MAX	Nozzle size	SPRINKLER			80% Wetted Diameter			INLET	TRAVEL SPEED - FEET PER HOUR											
		PSI	GPM	DIA	WIDTH	LENGTH	PSI		30	50	70	90	110	130	150	170				
	INCHES DEPTH OF APPLICATION																			
	0.39"	35	26	156	125	X	412	47	0.67	0.40	0.29	0.22	0.18	0.15	0.13	0.12				
	0.39"	110	47	243	194	X	447	147	0.78	0.47	0.33	0.26	0.21	0.18	0.16	0.14				
	0.43"	30	29	156	125	X	412	45	0.75	0.45	0.32	0.25	0.20	0.17	0.15	0.13				
	0.43"	100	54	246	197	X	448	147	0.88	0.53	0.38	0.29	0.24	0.20	0.18	0.16				
0.47"	30	35	162	130	X	415	51	0.87	0.52	0.37	0.29	0.24	0.20	0.17	0.15					
0.47"	90	61	248	198	X	449	149	0.99	0.59	0.42	0.33	0.27	0.23	0.20	0.17					
0.51"	25	37	156	125	X	412	49	0.95	0.57	0.41	0.32	0.26	0.22	0.19	0.17					
0.51"	70	63	235	188	X	444	133	1.08	0.65	0.46	0.36	0.29	0.25	0.22	0.19					
0.55"	25	43	163	130	X	415	56	1.06	0.64	0.45	0.35	0.29	0.24	0.21	0.19					
0.55"	65	70	236	189	X	444	142	1.19	0.71	0.51	0.40	0.32	0.27	0.24	0.21					
				Hours for Full Run:				11.7	7.0	5.0	3.9	3.2	2.7	2.3	2.1					

		MODEL			E140G X 350		PERFORMANCE											
MODEL E140 X 350' SIME HYDRA	Nozzle size	SPRINKLER			Irrigated Width 80% Wetted Diameter			INLET	TRAVEL SPEED - FEET PER HOUR									
									30	50	70	90	110	130	150	170		
		PSI	GPM	DIA	WIDTH		LENGTH		PSI	INCHES DEPTH OF APPLICATION								
	10mm	44	28	137	110	X	405	58	0.82	0.49	0.35	0.27	0.22	0.19	0.16	0.14		
	10mm	58	33	148	118	X	409	77	0.89	0.54	0.38	0.30	0.24	0.21	0.18	0.16		
	12mm	29	40	131	105	X	402	56	1.23	0.74	0.53	0.41	0.33	0.28	0.25	0.22		
	12mm	59	56	177	142	X	421	110	1.27	0.76	0.54	0.42	0.35	0.29	0.25	0.22		
	14mm	29	52	138	110	X	405	73	1.51	0.91	0.65	0.50	0.41	0.35	0.30	0.27		
	14mm	59	73	190	152	X	426	142	1.54	0.92	0.66	0.51	0.42	0.36	0.31	0.27		
	16mm	29	65	144	115	X	408	96	1.81	1.09	0.78	0.60	0.49	0.42	0.36	0.32		
16mm	44	80	171	137	X	418	142	1.88	1.13	0.80	0.63	0.51	0.43	0.38	0.33			
					Hours for Full Run:			11.7	7.0	5.0	3.9	3.2	2.7	2.3	2.1			

		MODEL			E140G X 350			PERFORMANCE										
MODEL E140 X 350' SIME K1	Nozzle size	SPRINKLER			Irrigated Width 80% Wetted Diameter			INLET PSI	TRAVEL SPEED - FEET PER HOUR									
		PSI	GPM	DIA	WIDTH		LENGTH		30	50	70	90	110	130	150	170		
	INCHES DEPTH OF APPLICATION																	
	8mm	22	13	102	82	X	391	25	0.51	0.31	0.22	0.17	0.14	0.12	0.10	0.09		
	8mm	29	15	112	90	X	395	33	0.54	0.32	0.23	0.18	0.15	0.12	0.11	0.09		
	8mm	44	18	125	100	X	400	50	0.58	0.35	0.25	0.19	0.16	0.13	0.12	0.10		
	8mm	58	21	135	108	X	404	66	0.63	0.38	0.27	0.21	0.17	0.14	0.13	0.11		
	10mm	44	28	135	108	X	404	58	0.84	0.50	0.36	0.28	0.23	0.19	0.17	0.15		
	10mm	58	33	144	115	X	408	77	0.91	0.55	0.39	0.30	0.25	0.21	0.18	0.16		
12mm	29	33	125	100	X	400	48	1.06	0.64	0.46	0.35	0.29	0.25	0.21	0.19			
12mm	59	47	154	123	X	412	96	1.23	0.74	0.53	0.41	0.34	0.28	0.25	0.22			
				Hours for Full Run:				11.7	7.0	5.0	3.9	3.2	2.7	2.3	2.1			

Booster Pump Operating Instructions

The Booster Pumps fitted to Kifco Water-Reels are for the sole purpose of adding pressure to an incoming water supply. These pumps should **NEVER** be allowed to run dry. The pump seals will be damaged if the pump body is not full of water when the pump is running.

The Booster Pump engine is supplied with fuel from an auxiliary fuel tank mounted beside the engine. ***Never refuel while the engine is running.***

Starting the Engine/Pump

Before attempting to start the engine check fuel and oil levels. The oil level is very important. Also check that the water flow control valve at the sprinkler cart is in the on position. **Water must be running through the pump.**

Start-up Procedure

1. Turn the ignition switch to 'On'
2. The fuel line valve below the tank and valve on the engine must be 'On'
3. If the existing water supply produces water flow that is too low the **Flow Switch** will prevent the engine from starting on units so equipped. To by-pass the Flow Switch depress the button mounted on the engine cover beside the gauge and hold down until the engine has started and the flow is sufficient for the engine to run with the by-pass button released.
4. With the booster pump running a pressure increase should be observed on the machine pressure gauge. Use the engine throttle to control the water pressure. If there is no apparent increase in the water pressure, stop the engine and check the water supply.



Important: A pump inlet pressure gauge is installed to read the incoming line pressure. If this gauge shows little or no line pressure it is an indication that there is something wrong with the water supply. For example: the supply line might be insufficient or there may be a restriction in the line.

Booster Pump Operating Instructions



Important - Please be sure to read and understand the following note.

Engine Choke

The choke lever on the booster pump engine may have a mid-position that can be used for engine warm-up.

It is imperative that the choke lever is in the full open position when the engine is in normal operation.

The booster pump operation is such that the engine must accept full load as soon as it starts, therefore the engine may require a partial choke setting for a few seconds after starting. If the choke is left partially on, it will damage the engine. The oil will become contaminated with gasoline and/or a heavy carbon buildup will form inside the engine, which will make the engine seize.

Automatic Shutdown

At the completion of an irrigation run the engine will shutdown automatically if the selector valve has been set to shut off the water supply. (See Page 13) Otherwise the engine will run until it is manually stopped.



Maintenance

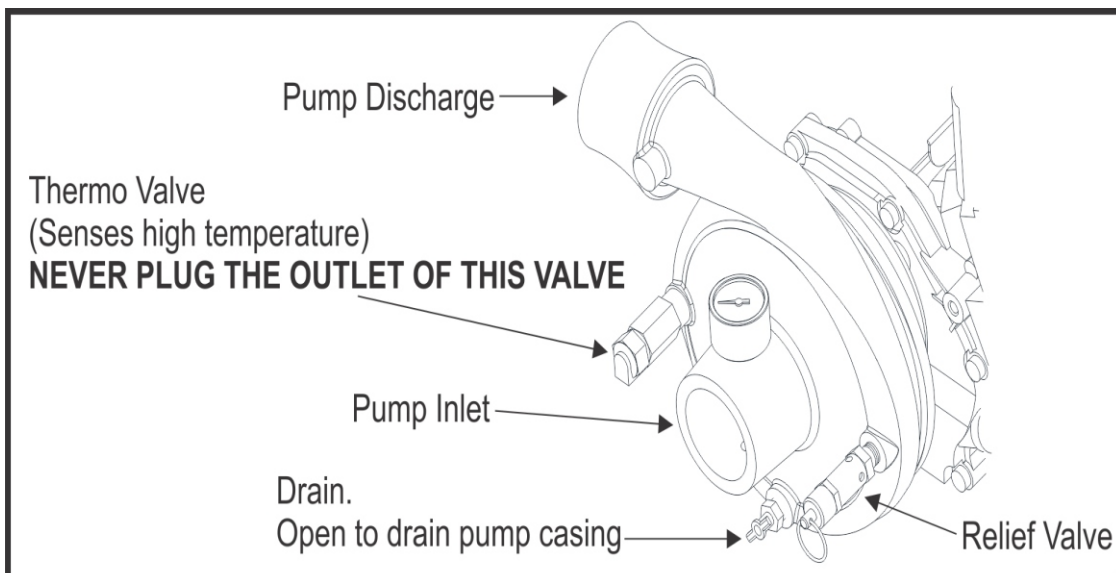
Note: New engines are shipped **without oil !!!**

Regularly check the engine oil level. Make periodic oil and air cleaner changes. Read the engine manufacturer's manual for instructions and maintenance procedures.

Important Safety Message



If the automatic shutdown feature is in use or the nozzle becomes plugged and the pressure switch fails to stop the engine, the water inside the pump will become scalding hot. The booster pump is equipped with a high temperature valve, which discharges a small quantity of water to prevent the water in the pump from becoming too hot. The valve is located on the pump volute as indicated in the drawing below. It can also be installed in place of the drain plug. Do not operate this pump if this valve is not in place or is damaged. **Do not attempt to plug the discharge port of the high temperature valve!**



Booster Pump Operating Instructions



CAUTION:

The booster pump engine has a break-in period! To avoid damage see engine's Owner's Manual

Oil Alert - Please note the following:

The Honda engine used on the booster pumps are equipped with a low oil level switch. If the engine becomes low on oil, it will stop. To avoid unwanted shutdown of the pump, it is important that the engine oil level be kept full.

Note: The dipsticks on the Honda engines are designed to indicate the proper oil level when the checking plug is unscrewed. Remove the dipstick, wipe it clean and check the oil level without screwing it back into the engine. Be sure to follow the engine manufacturer's recommendations when checking the oil level. Just removing the plug and checking the level may give a false reading that is higher than actual oil level.

Winterizing

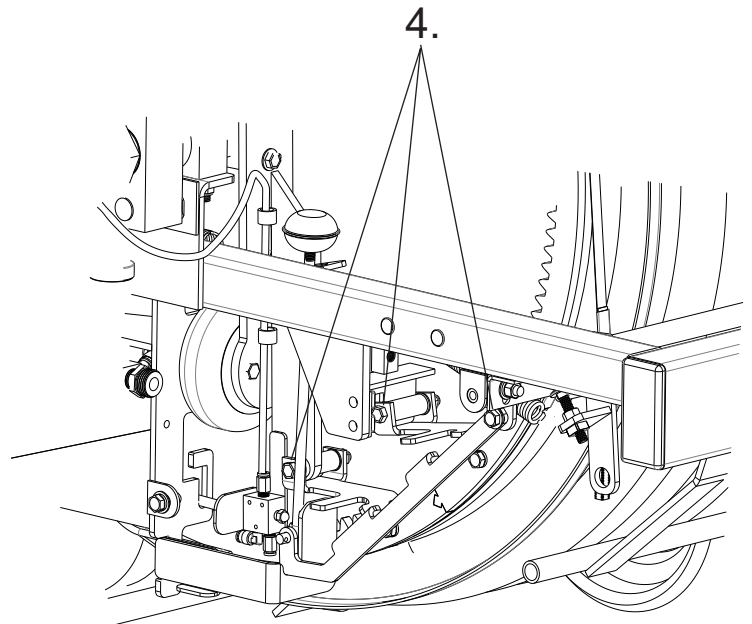
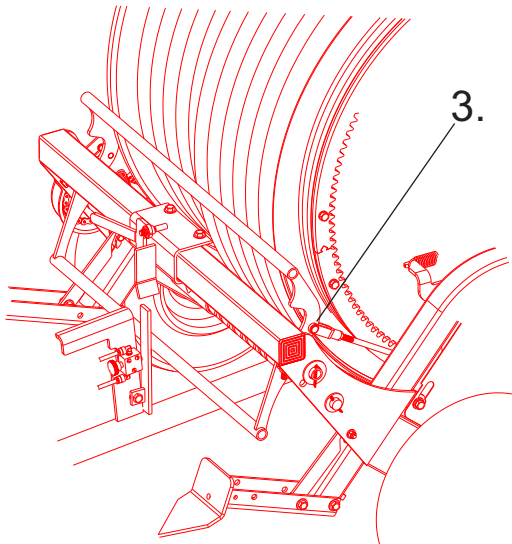
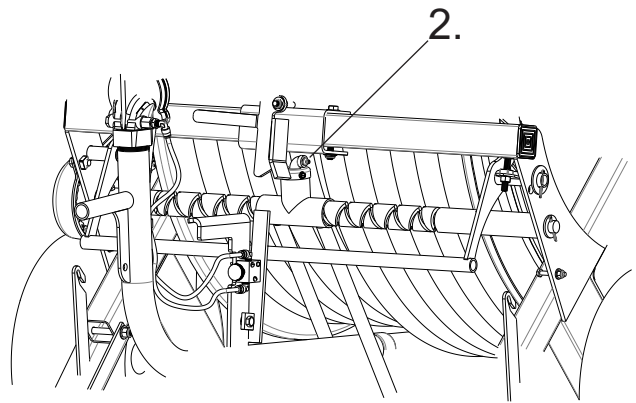
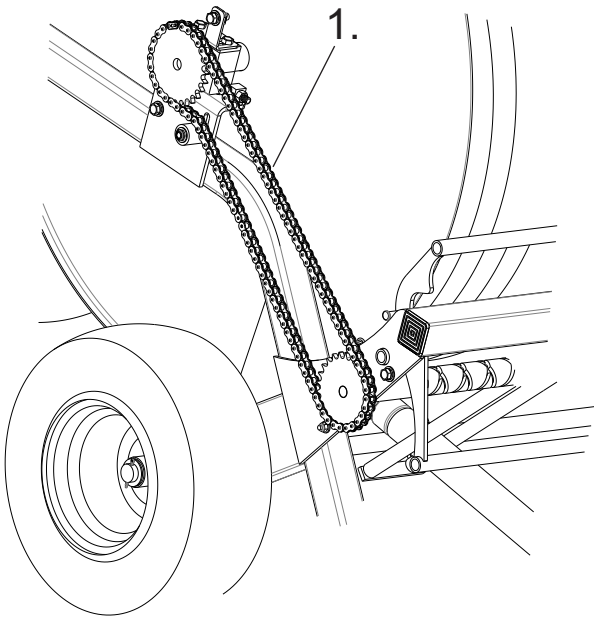
The pump must be drained of water. To drain the pump, remove the plug from the bottom of the pump body. Service the engine in preparation for the next season.

Maintenance & Repair

Maintenance Procedures: Inspect and perform any maintenance procedure after 100 hours of use. Your Water-Reel machine is equipped with Delrin® Spool Bearings and Drive Arm Pivot Bearings that do not need lubrication, but should be inspected periodically for any wear problems.

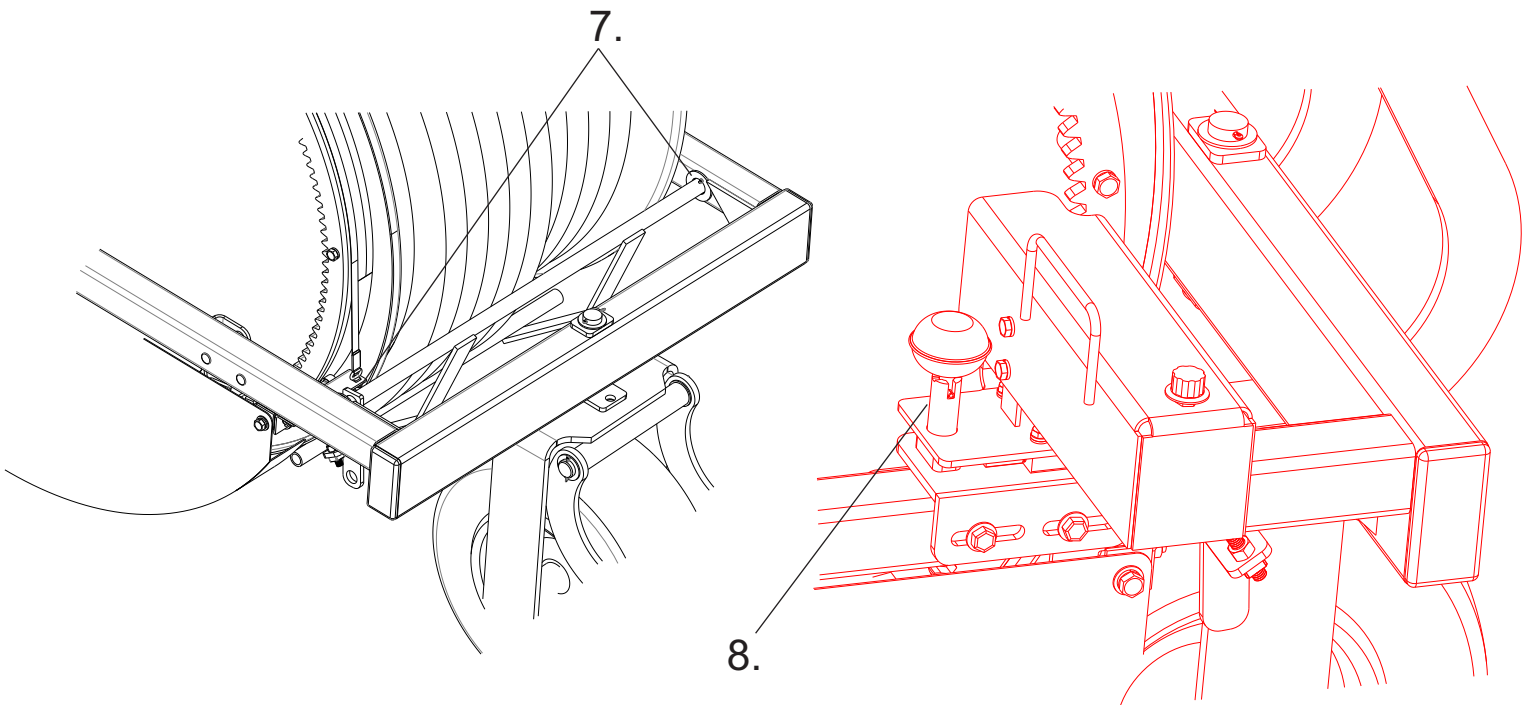
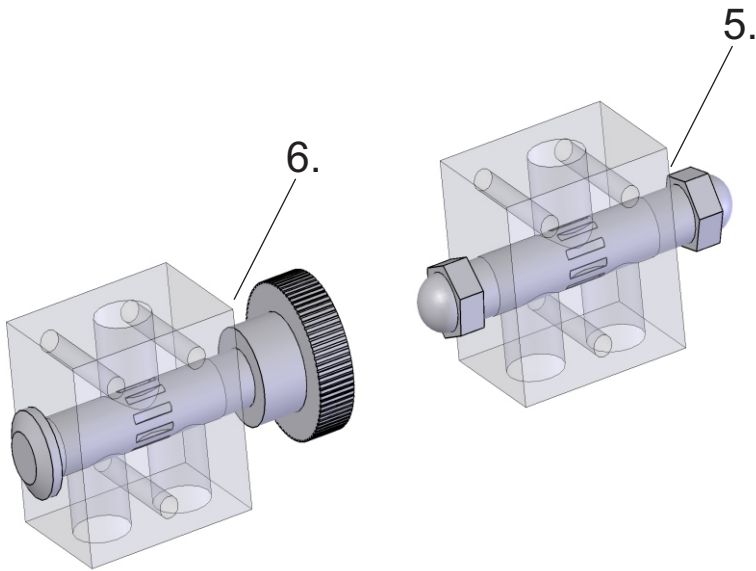
Tire Pressure: Inflate tires to 28 p.s.i.

1. Level Wind Chain - Oil periodically
2. Level Wind Screw - Check for excessive wear and grease Level Wind Knife
3. Shut Off Bar & Linkage - Grease if necessary
4. Hold Pawl, Drive Pawl & Hold Out pivot- Oil periodically



Maintenance & Repair

5. Pilot Valve (on bellow arm B140G only) - Lubricate with liquid soap (if needed)
6. Spool Valve (on Gun Cart on both B/E 140Gs) - Lubricate with liquid soap (if needed)
7. Tube Rider - Oil if necessary
8. Motor Disengage Pin - Grease if necessary



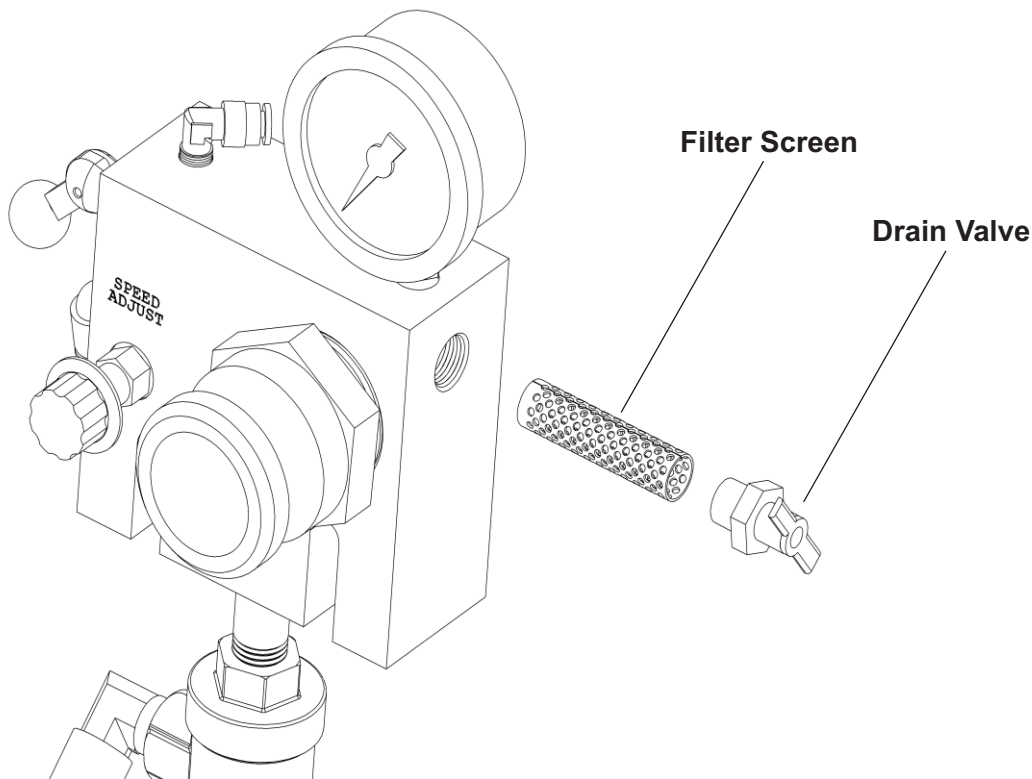
Maintenance & Repair

Filter (on B140G only)

Your Water-Reel is equipped with a Filter Screen to protect the water motor from dirt & debris, which may be present in the irrigation water. The filter protects only the water motor. The water flowing out of the sprinkler is not filtered.

To clean the filter, remove the drain valve on the valve assembly and pull the screen out with your fingertips. Clean and inspect the screen for damage or tears. Reinstall the filter and drain valve.

Never attempt to clean the filter while the machine is pressurized. Always turn off the water supply and relieve pressure before starting any form of maintenance.

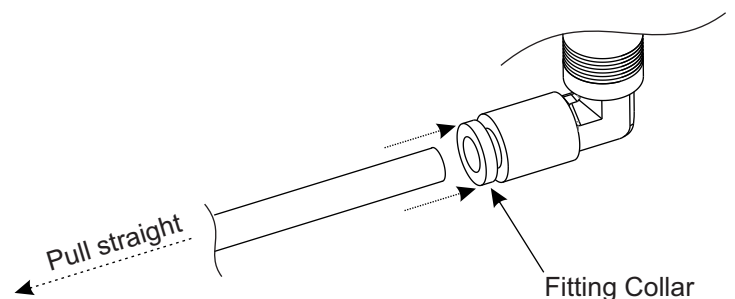


Important

The Filter should be cleaned at least once each season, even when operating with clean water. When pumping from ponds or streams, the Filter must be cleaned more frequently. In very dirty water conditions it may be necessary to clean the Filter each time the Water-Reel is used.

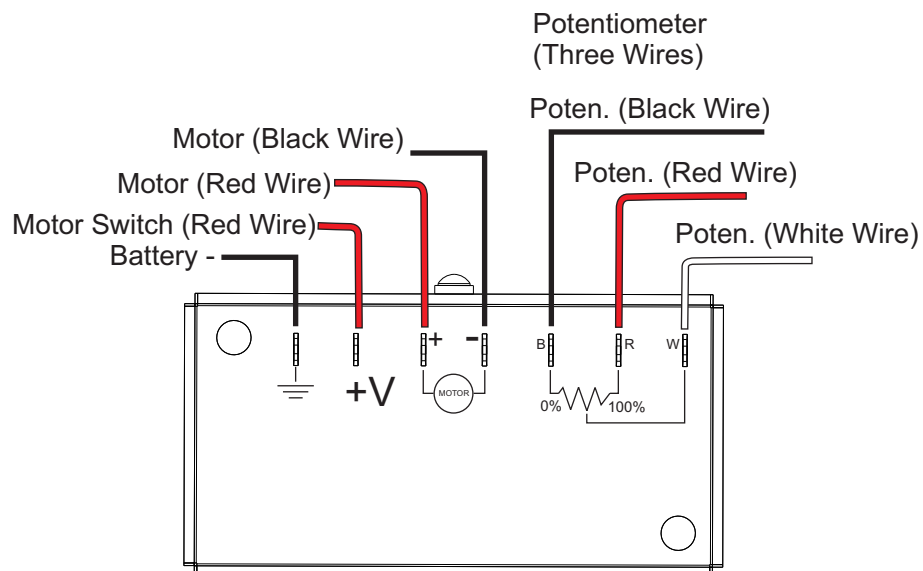
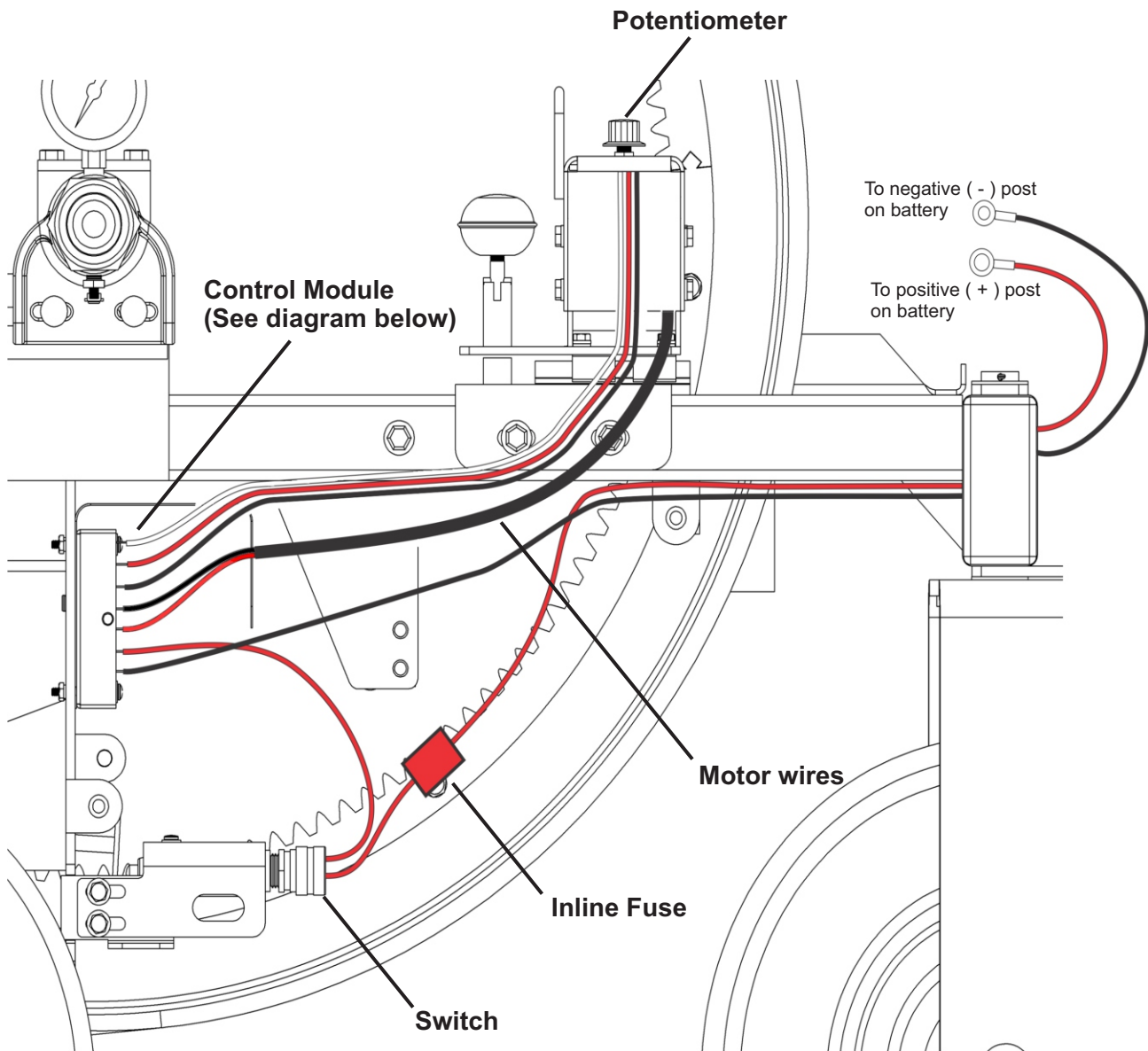
Detaching Tubing From Fittings

1. Push the collar on the fitting completely in.
2. Firmly pull the Synflex tubing straight away from the fitting.



Maintenance & Repair

In-Line Fuse - The Fuse is an automotive style fuse. 5 Amp rated



Polyethylene Tube Repair

Tube menders can be purchased from your Kifco Dealer



Warning! Installing fittings or repairing polyethylene tube used on your Water-Reel is hazardous! The tube has a memory from being coiled on a reel and will try to coil back up if the tube is loosened from one end or cut in two. The condition possesses a serious hazard to person and/or property. The tube must be restrained any time there is a loose end!

Polyethylene Tube Repair

Screw-in menders are an excellent alternative to butt-fusion welding for the repair of polyethylene tube. The compact design allows a mender to be wound onto the spool without damaging itself or the adjacent coils of tube. They can be installed in the field and the tube can be put into service immediately after the repair is made. The menders are designed to be fitted at ambient temperature. Never try to apply heat to assist installation. Menders must be installed straight and concentric with the tube to prevent premature failure.

Installation Instructions

Step 1:



Cut the tube on either side of the damaged area. Make good, straight cuts. Use a block of wood or soft hammer to tap the collar fully on to the end of the tube.

Step 2:



Chamfer the tube internally with a knife or coarse file so that the end of the screw-in mender will enter the tube.

Step 3:



Important: Please note the mender threads are different on each end. One is left hand and one is right hand. Screw the mender about 2/3rds into the end of the tube using a wrench on the center knurled shoulder. Then unscrew it. Repeat the procedure for the other end. Watch for the left hand thread.

Step 4:



Now start the mender in both ends simultaneously. As it screws in, it will draw both ends of the tube to the center. This time, screw it all the way to the shoulder. The tube should now be ready to go immediately back into service.

Machine Winterization

Freezing will not damage the type of Polyethylene tube used on your Water-Reel. Even though the tube does not need to be drained you must drain all metal parts.

Completely remove the Supply Hose from the Inlet fitting

B140G Model - Open the Speed Control Valve to the full open position. The Bellows Exhaust Discharge Hose must be removed to allow water to drain through the Discharge Hose Fitting.

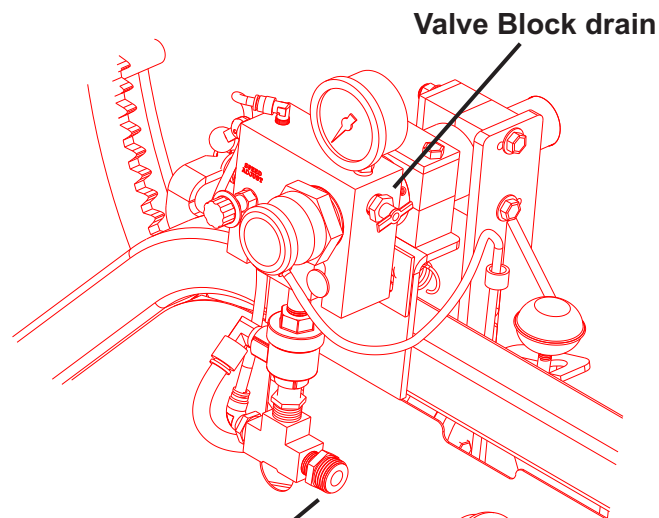
Open the drain on the side of the Valve Block Assembly.

Open Bellows Plumbing drain leading to the bellows.

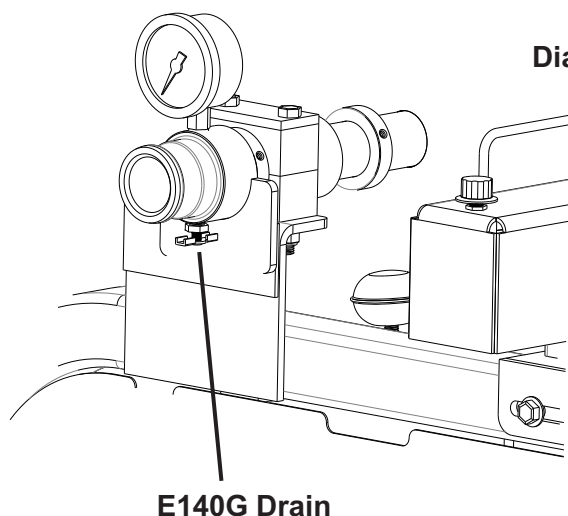
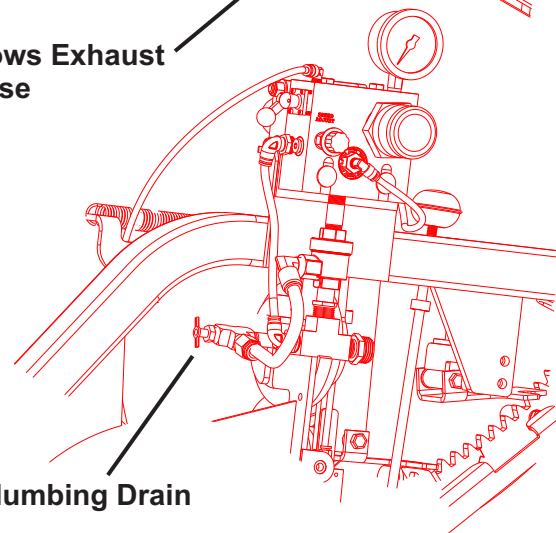
E140G Model - Open the drain under the Inlet fitting.

Gun Cart (both models) - Pull the Gun Cart out until approximately 3-4 coils of tube is off the spool. Remove the Drain Plug located under the Gun Cart. Rewind the tube coils by hand.

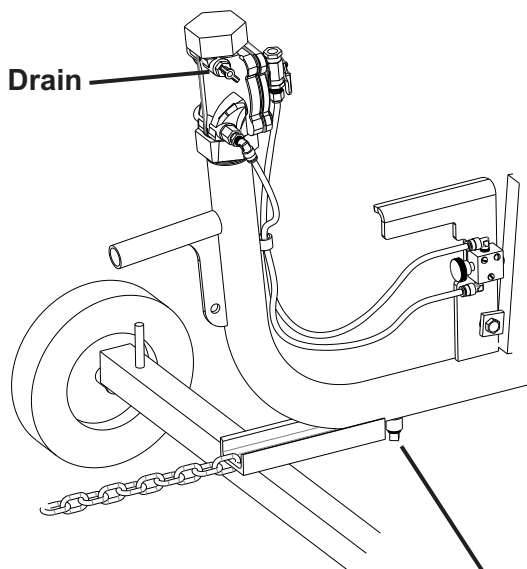
Open the drain on the Diaphragm Valve.



Remove Bellows Exhaust Discharge Hose



Diaphragm Valve Drain



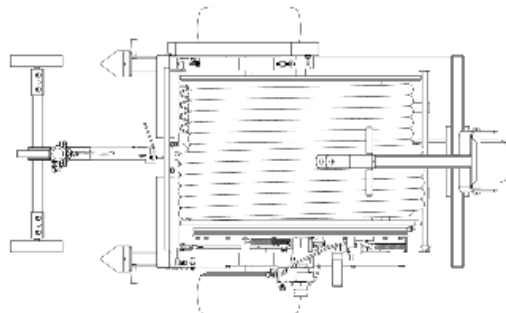
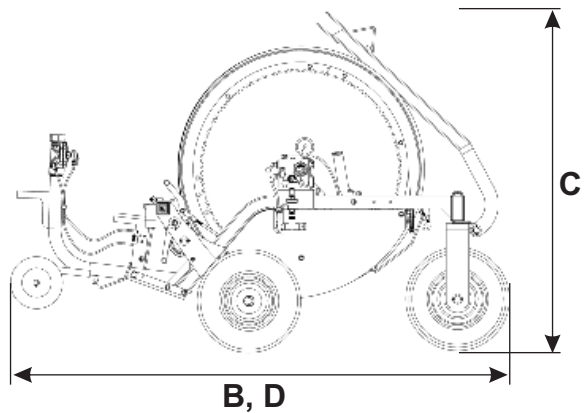
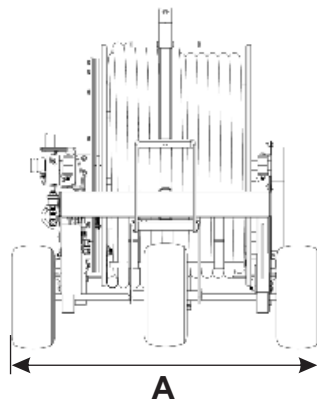
Gun Cart Drain Plug

Storage & Specifications

1. Lubricate all points in the lubrication chart to prevent rust and corrosion from forming.
2. Check and clean the filter (B140 only)
3. Store the Water-Reel away from direct sunlight
4. Make sure all openings such as the water inlet are plugged so rodents and insects cannot bring foreign materials into the Water-Reel
5. When taking the Water-Reel out of storage, be sure there are no rodent or insect nests present that may plug filters, valves or the sprinkler.

Machine Specifications

	<u>B140G</u>	<u>E140G</u>
PE Tube Inside Diameter	1.43"	1.43"
PE Tube Length	350'	350'
Machine Weight (no water)	530 lbs	530 lbs
Machine Weight (with water)	775 lbs	775 lbs
A Machine Width	48"	48"
B Machine Length	70.75"	70.75"
C Machine Height	51.25"	51.25"
D Machine Length w/ Booster Pump	74.75"	74.75"
E Machine Width w/ Booster Pump	49.5"	49.5"





Important

Never attempt to re-time the Water-Reel without first pulling all the tube out. Changing the timing with some of the tube still on the spool may result in damage to the irrigation tube and/or the Water-Reel.

Adjustments

Level-Wind Timing:

Proper timing of the Level Wind mechanism is essential to the successful operation of the Water-Reel. Improper Level Wind timing will result in mis-wrapped tube. Travel will be interrupted because the auto Shutoff Bar will stop the motor in order to prevent damage to the irrigation tube. Do not continue to operate if the tube is not winding properly!



Important! Confirm that the timing is at fault before attempting to change the timing. Your Water-Reel was shipped from the factory with the tubing wound on it. The Level Wind timing was set at the factory prior to installing the tube. If there has been no disassembly of the Level Wind mechanism, or the tubing removed & reinstalled, it is very unlikely that the timing is wrong. If the tubing is loose on the spool the Level Wind system will appear to be out of time. (See page 34 for the brake adjustment).

Note: Review loose tube troubleshooting on page 11.

To re-time the Level Wind, these steps **must** be followed:

1. Pull all the irrigation tube out from the Water-Reel. You may wish to stop slightly before the elbow is exactly on the angle and turn the spool the last few degrees by hand. The barb to which the tube is fastened must be 45° to the ground as shown (See Figure 1).
2. Observe the position of the Tube Follower on the horizontal Level Wind Screw. The Tube Follower must be in its most extreme position (all the way to the end of the Level Wind Screw thread) and on the same side of the Water-Reel as the spool elbow (See Figure 2). Align the Timing Mark with the Timing Mark Decal arrow (See Figure 2).

Figure 1

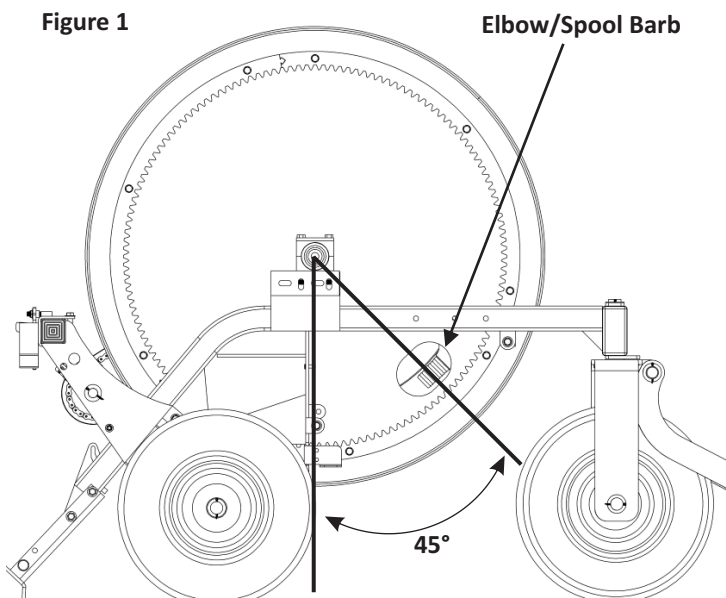
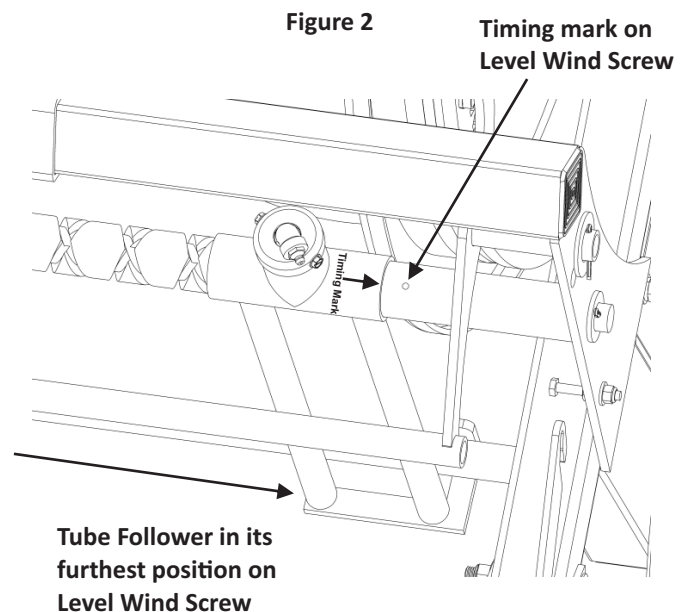


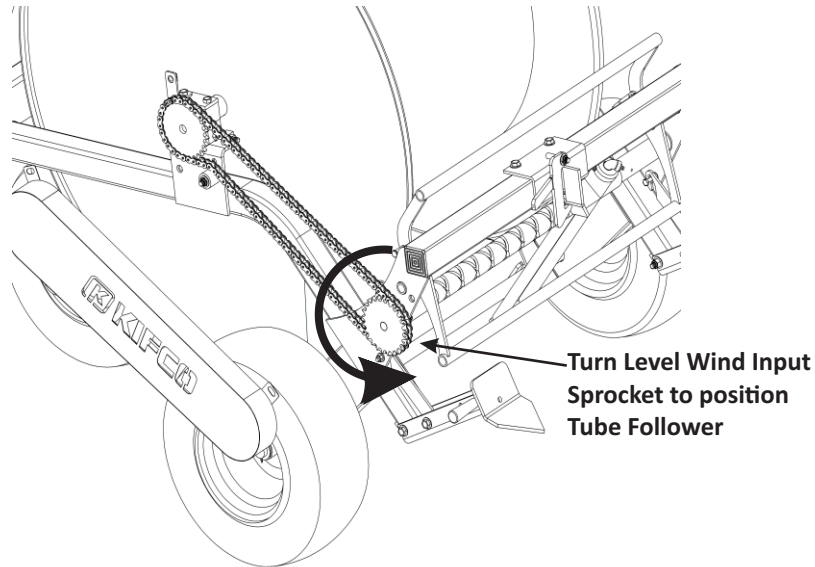
Figure 2



Adjustments

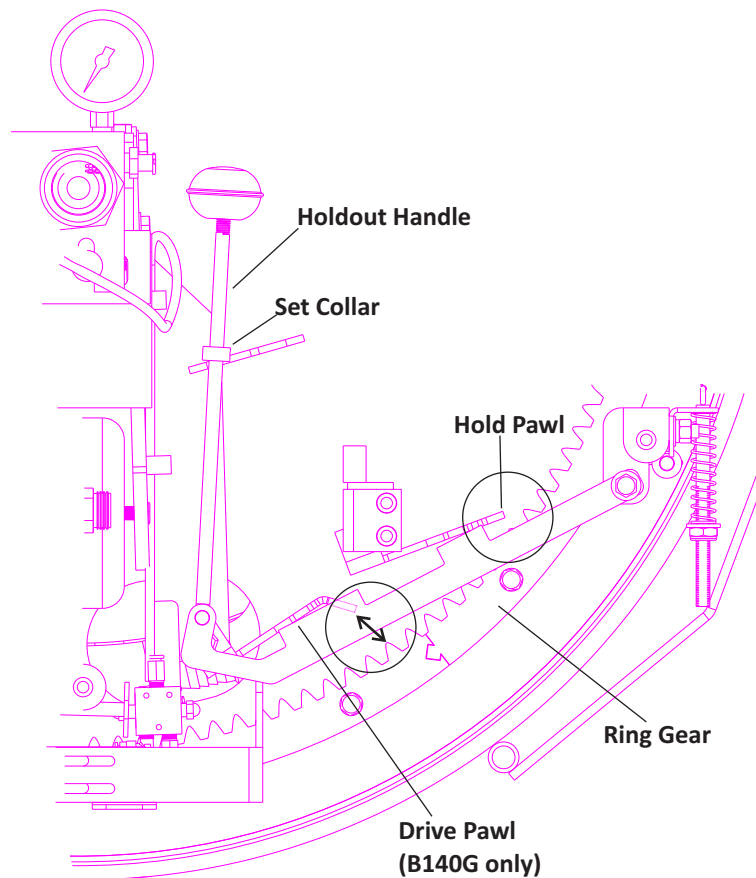
Re-time the Level Wind continued:

3. To change the timing, remove the Shield and disconnect the Level Wind Drive Chain from the right hand side of the Water-Reel. Rotate the Level Wind Input Sprocket until the Tube Follower is positioned as described in step #2. Reinstall the Level Wind Drive Chain and Shield. The Level wind will now be in proper timing.



Holdout Handle adjustment

When the Holdout Handle is pulled up during tube pull out; the Pawls (two on the B140G and one on the E140G) must not contact the Ring Gear at any time. Adjustments can be made by the Set Collars position until required clearance.



Adjustments

Replacing & Adjusting The Spool Brake

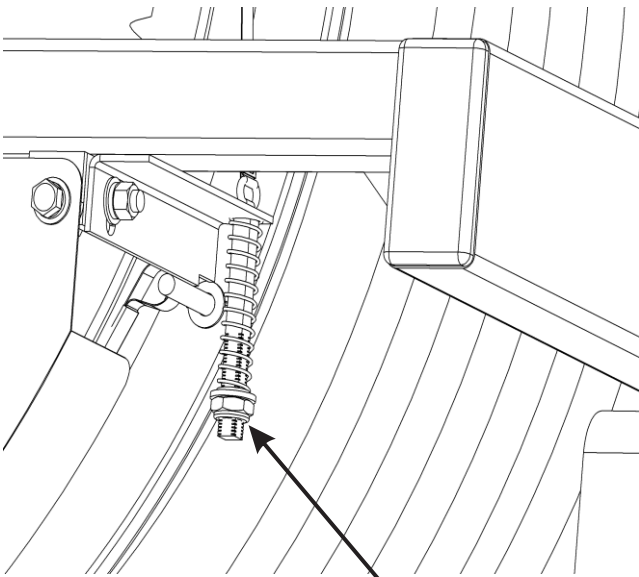
The purpose of the Spool Brake on the Water-Reel is to prevent coasting of the Spool when the Tube is being pulled out. This function is important in order to keep the Tube from becoming loose on the Spool. There is no other purpose for the Spool Brake except to prevent the Spool from coasting during pull out. The Spool Brake does not perform any useful function while the Tube is being retracted. The Spool Brake is the self-energized type that adds resistance in only one direction.

The Spool Brake Band must be in good working order and maintained at the proper tension. The Spool Brake should offer substantial resistance to turning the Spool by hand. If the Spool Brake becomes damaged or broken, it must be replaced.

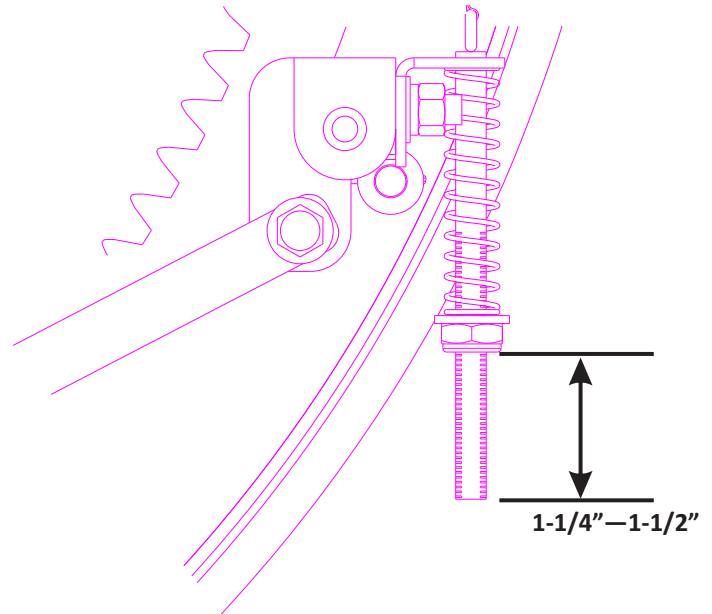


Note:

When the Tube becomes loose on the Spool, it may appear that the Level Wind is not in time with the incoming Tube. This occurs because the Spool is coasting inside the coils of Tube. The Level Wind mechanism is moving but no Tube is coming out. This problem is more noticeable if the Water-Reel is being used on short runs where the entire Tube is seldom pulled its entire length out.



Brake Band
Adjustment
Bolt & Nut



Adjustments are made to the brake by tightening or loosening the brake adjustment nut. Original factory settings are 1-1/4" to 1-1/2" between the end of the Brake Adjustment Bolt and the Brake Adjustment Nut .

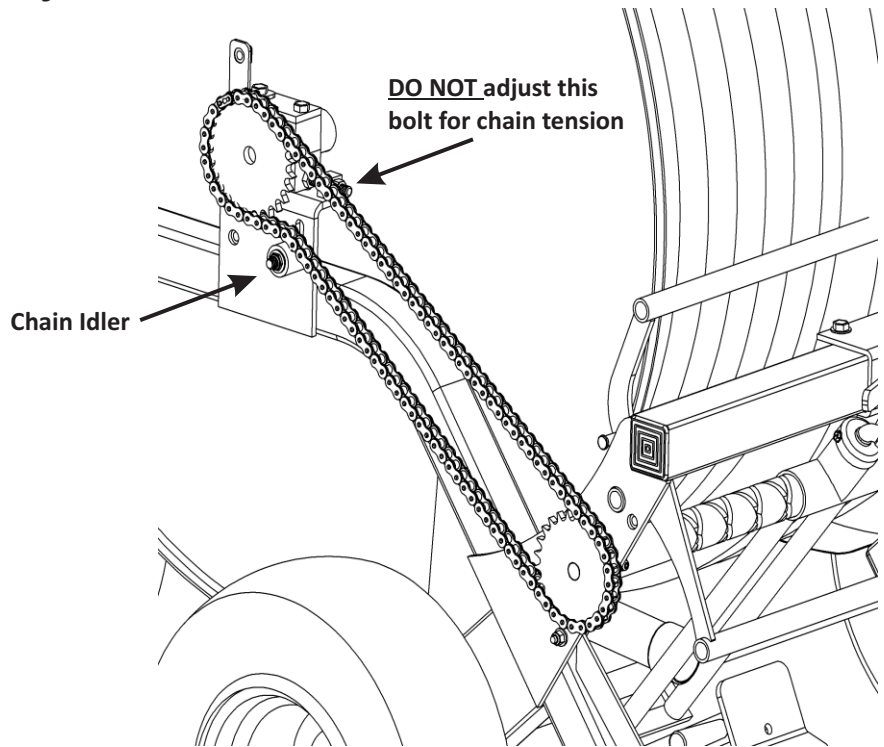
Adjustments

Adjusting Level Wind Chain

The Level Wind chain tension is adjusted under the Level Wind Chain Guard. To adjust, loosen the bolt on the Chain Idler and move either up or down.

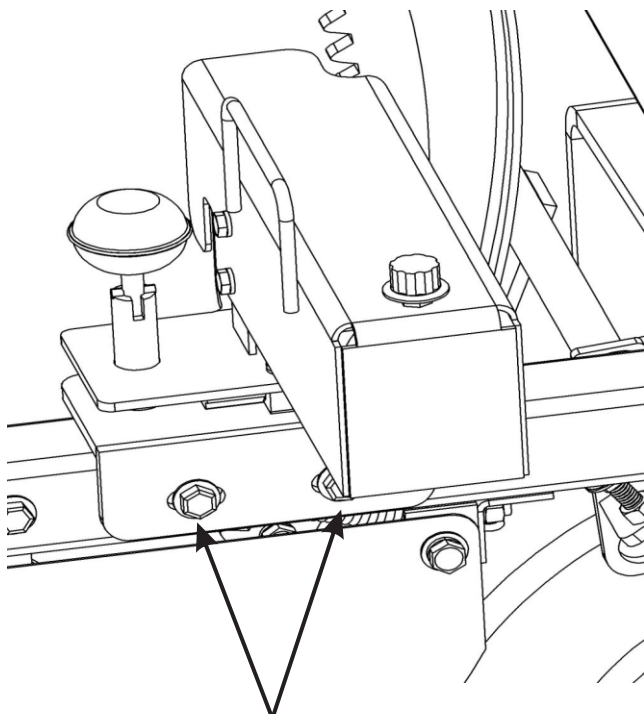


NOTE: DO NOT attempt to adjust the Level Wind chain tension with the Spool Bearing Bolt.

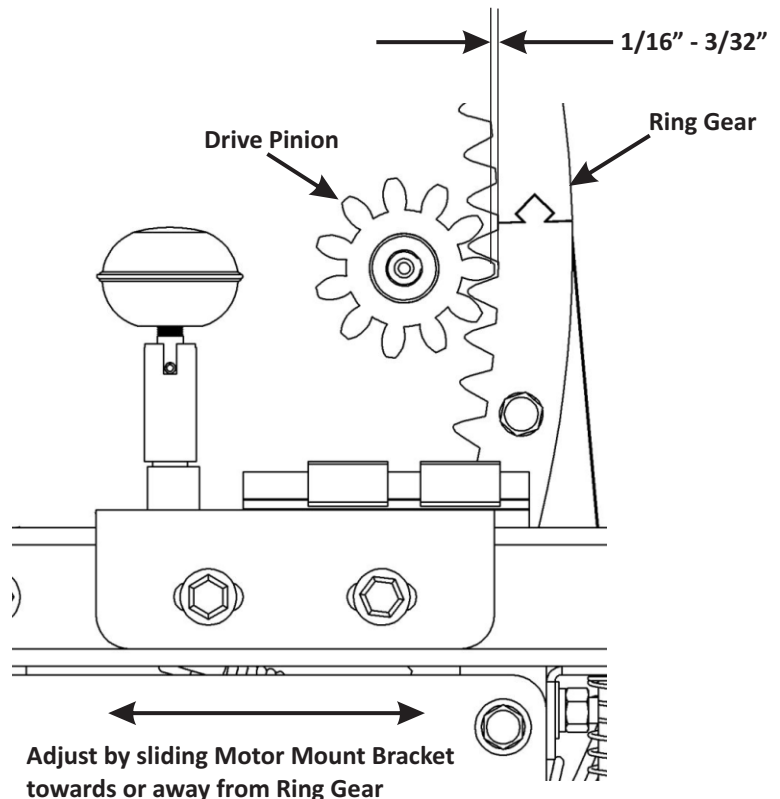


Adjusting Motor Pinion-Ring Gear Distance

With the Motor Mount Pin engaged, the Drive Pinion to Ring Gear clearance should be $1/16''$ to $3/32''$ (.063" - .094"). Adjust the Drive Pinion clearance by loosening the two Motor Mount Bracket bolts on the side of the frame and sliding the Motor Mount Bracket in towards or away from the Ring Gear. Once the correct clearance distance is acquired, re-tighten the two bolts.



(2) Motor Mount Bracket bolts

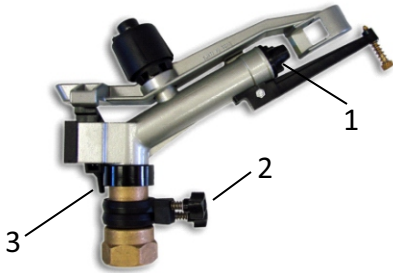


Sprinkler Options and Adjustment:

1) Nozzle

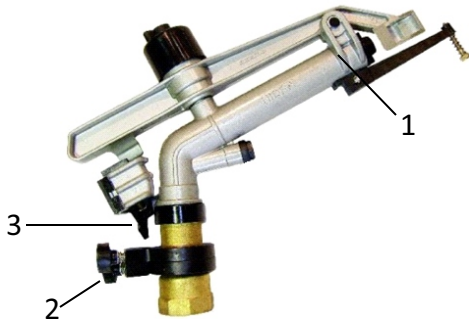
2) Part Circle Stops

3) Part Circle Pin



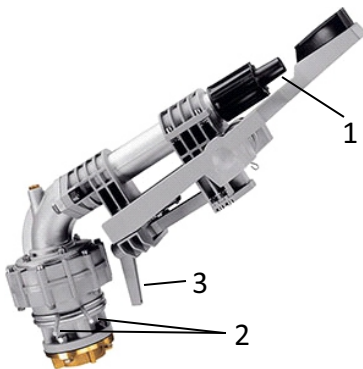
Sime K1

Part circle stops can be rotated to provide any desired arc of operation. To adjust the stop slacken the knurled nut, move the stop and re-tighten the nut. For full circle operation (shown) slacken the nut and slide both collars below the part circle pin.



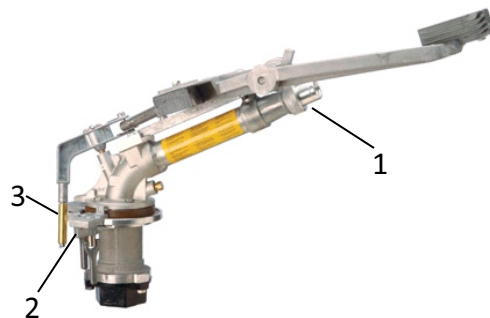
Sime Hydra

Part circle stops can be rotated to provide any desired arc of operation. To adjust the stop slacken the knurled nut, move the stop and re-tighten the nut. For full circle operation (shown) slacken the nut and slide both collars below the part circle pin.



Komet Twin Max

Part circle stops can be rotated to provide any Desired arc of operation. No tools are required to change the arc. **Do not** attempt to remove the spring clips from the base of the sprinkler.



Nelson SR-75

Part circle stops can be rotated to provide any desired arc of operation. To adjust the stop slacken the lever bolt, move the stop and re-tighten the bolt

Optional Equipment

Booster Pump Kits - Booster Pumps provide additional pressure to your WaterReel when needed to maximize performance. Kifco offers a 5-1/2 & 9 Horsepower booster pump kit . For detailed information on each model please visit us at www.kifco.com.

Substitute Sprinklers - Refer to page 36 or your local authorized Kifco dealer.

Solar Panel Kit - The Kifco Model E140G can be equipped with a highly efficient solar panel which practically eliminates the need for an electrical charge.

8" Pneumatic Gun Cart Tire Kit - Wider flotation tires create added stability in rough terrain.



LIMITED WARRANTY

KIFCO products are warranted to the original user for a period of one year from the date of his purchase invoice, that the equipment will be free from defects in material and workmanship subject to the following conditions:

Satisfaction of this warranty will be limited to the replacement, repair or modification of the equipment involved at the manufacturer's option. The manufacturer's obligation under this limited warranty shall be limited to a credit to the dealer or customer account for the parts or materials required for replacement, repair, or modification of the equipment.

Freight costs shall be paid by the dealer/customer.

This warranty does not apply to certain component parts used on KIFCO equipment. Such component parts are warranted by the original manufacturer and KIFCO'S responsibility is limited to communicating the need for warranty service to each to each manufacturer. Such component parts include, but are not limited to tires, batteries, gearboxes, transmissions, pumps and sprinklers.

This warranty shall be available only if:

- KIFCO has received a properly executed delivery record,

- KIFCO is notified in writing within 30 days upon discovery of an alleged defect and

- KIFCO'S examination of the equipment discloses, to its satisfaction, that such alleged defect has not been caused by misuse, neglect, improper installation, improper operation, improper maintenance, repair or alteration, accident or unusual or extraordinary use demands.

THE FOREGOING WARRANTY SUPERSEDES AND IS IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESSED, IMPLIED OR STATUTORY, AND ALL OTHER LIABILITIES OR OBLIGATIONS ON THE PART OF KIFCO, INC.

KIFCO MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO THE EQUIPMENT.

KIFCO MAKES NO WARRANTY THAT THE EQUIPMENT IS FIT FOR ANY PARTICULAR PURPOSE.

LIMITATION OF LIABILITY

KIFCO SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO, DAMAGES FOR INJURY TO THE PERSON OR PROPERTY OR LOST PROFITS) OR ANY INCIDENTAL OR SPECIAL DAMAGES AND/OR EXPENSES, OR CLAIMS FOR INDEMNIFICATION, BY REASON OF ANY DEFECT IN THE EQUIPMENT OR ITS MANUFACTURE, DESIGN OR FUNCTIONING, OR ANY INSTRUCTIONS CONCERNING THE EQUIPMENT.

No agent or representative of KIFCO or any of its dealerships has authority to waive, alter or add to the printed provisions of this warranty and limitations of liability.

Dealer Checklist

Owner's Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Model: _____ Serial No.: _____ Date Sold: _____

Pre-delivery Checklist: Check below before delivery to customer.

- | | |
|--|---------------------------------|
| _____ 1. Guards and shields are in place | _____ 6. Sprinkler Nozzles |
| _____ 2. Decals are in place & legible | _____ 7. Clutch disengage |
| _____ 3. Tire pressure | _____ 8. Supply Hose fittings |
| _____ 4. Lubrication (Pages 25 & 26) | _____ 9. Touch up paint & clean |
| _____ 5. Spool Brake adjustment | |

Delivery Checklist:

Review the operator manual with the user and explain the following:

- _____ 1. Kifco warranty policy and claims procedure
- _____ 2. Safe operation and service
- _____ 3. How to operate your Water -Reel
- _____ 4. Transporting the Water -Reel on roads or highways.
- _____ 5. Speed adjustment and effect on depth of water
- _____ 6. Effect of water pressure on Water -Reel performance
- _____ 7. Winterization and storage procedures
- _____ 8. Give the customer this manual and encourage the customer to read and study the information in the manual

Date Delivered _____

Name of Dealer _____ Dealer Phone Number _____