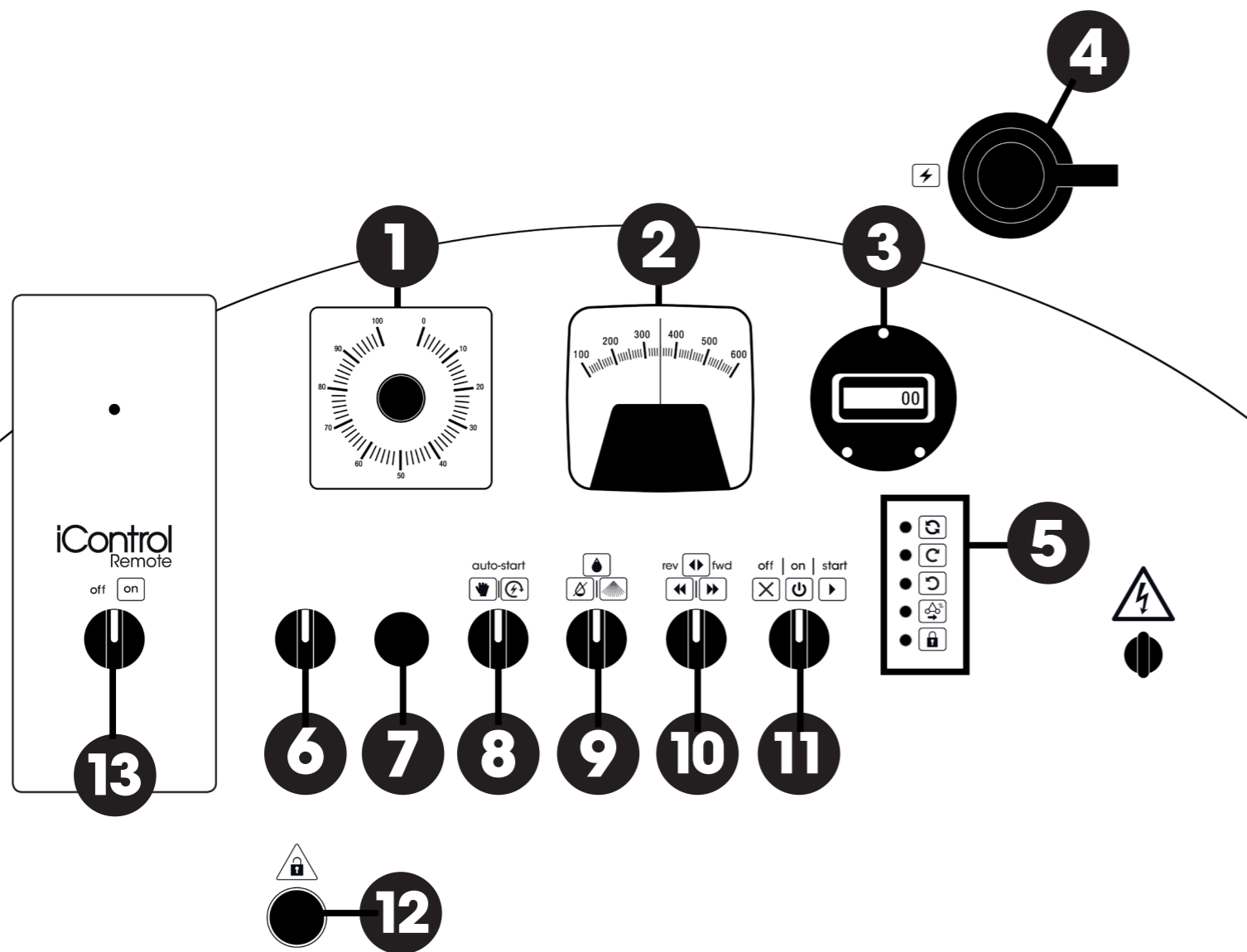


iControl  
Standard

# Pivot Quick Start Guide

AIS<sup>co</sup>

# 01 Pivot Panel functions



- 1 Percentage Timer:** controls the speed of the machine by fixing how long the end tower motor runs during a 60-second time period.
- 2 Voltage Meter:** monitors voltage entering the panel from the main power source.
- 3 Hour Meter:** clocks the amount of time the pivot is used.
- 4 Disconnect Switch:** cuts off power to the machine.

**Note:** panel door will not open unless the switch is in the OFF position.
- 5 Operation Indicator Lights:** show when an operation is in use.
- 6 Options:** N/A
- 7 Options:** N/A
- 8 Power Auto Start Switch:**

**The ON position** allows the system to start automatically whenever receiving power.

**The OFF position** prevents the machine from starting automatically after a power outage.
- 9 Irrigation Switch:**

**The WET option** will stop the machine in the event of a loss of water pressure. When the machine starts, if the pump or the valve are wired to the panel, the WET option will open the valve or will turn the pump on. The WET option will also close the valve or will turn the pump off when the pivot stops.

**The DRY option** will allow the machine to run without water pressure. It will close the valve or turn the pump off when the pivot starts or stops.

**The AUX option** works like the WET option. It will also start and stop the dosing pump when the pivot starts or stops.
- 10 Direction Switch:** selects the running direction and enables the autoreverse option.

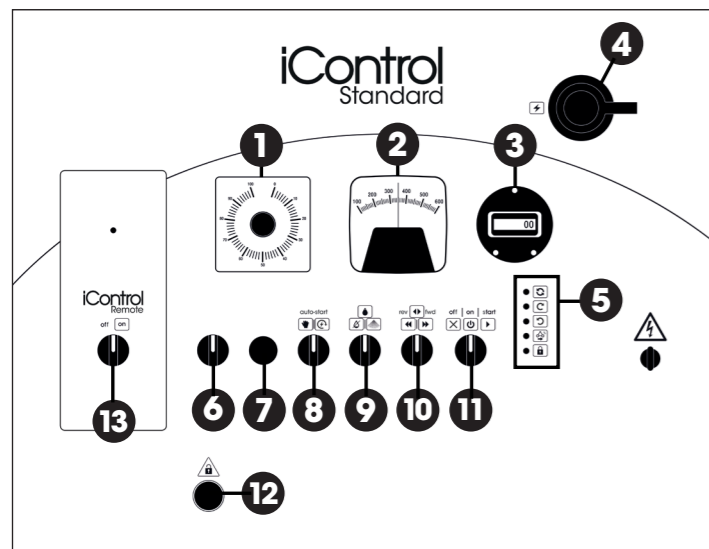
With the **FORWARD** setting the spans will move clockwise and stop at the barricades.

With the **AUTOREVERSE** setting the spans will change direction once they reach the barricades.




With the **REVERSE** setting the spans will move counterclockwise and stop at the barricades.
- 11 Running Switch:** stops and starts the machine.
- 12 Safety Override Button:** allows to start the entire machine when a safety micro-switch opens due to misalignment, a fault occurs in the autoreverse option, there is excess time in the over-watering timer, or any other reason. The machine may only be started again by pressing the safety override and the start buttons.
- 13 iControlRemote Switch:** enables and disables the iControlRemote device. If the pump or the valve are wired to the iControlRemote device, the ON position will override the valve and pump controls of the Irrigation Switch (9) and allow the iControlRemote device to control the irrigation.











# 02



## How your irrigation system operates




### STARTING THE PIVOT

1. Turn the Disconnect Switch (4) to ON.
2. Check the voltage on the Voltage Meter (2).
3. Select the desired speed in the Percentage Timer (1).
4. Set the Irrigation Switch (9) to the desired setting.
5. Set the Direction Switch (10) to the desired setting: FORWARD , AUTOREVERSE , REVERSE 


REVERSE	FORWARD
	
	
	
	
	

6. Turn the Running Switch (11) to START.
7. Check the Operation Indicator Lights (5) to verify that the pivot is working properly. The following indicators lights should be lit up, depending on the direction:
  - Manual: the pivot will not start after a power outage.
  - Automatic: the pivot will start automatically when receiving power.
8. Choose manual  or auto restart  on the Power Auto Start Switch (8).
9. Turn on the iControlRemote Switch (13) if you want control remotely.

 Before programming or starting the system, ensure that no person, animal or vehicle is inside the range of operation of the machine which could result in damage.


### MACHINE EMERGENCY STOP



Additionally, all our pivots are fitted with a Disconnect Switch below each tower box. Turning this switch to OFF will stop the whole machine by interrupting the safety circuit.

 This switch should only be used in an emergency.

### STOPPING AND DISCONNECTING THE PIVOT




- The stopping sequence:
1. Set the Running Switch (11) to OFF.
  2. Disconnect power with the Disconnect Switch (4).
  3. Turn off the generator or the electric power at the pump station or transformer.

 Even if the Disconnect Switch (4) on the control panel has been turned to OFF, there still might be 480/380 VAC in the panel if the main power supply has not been turned off.


 To avoid damage to the machine, always turn Power Auto Start Switch (8) to OFF  before turning the Disconnect Switch (4) to OFF and disconnecting power. The internal door of the panel cannot be opened until the Disconnect Switch is turned OFF.

### AUTOREVERSE/AUTO OFF OPTION

The autoreverse device is usually located at the end tower of the machine.

- Barricades autoreverse function:
  1. Turn the Direction Switch (10) to the AUTOREVERSE  position.
- Barricades auto stop function:
  1. Turn the Direction Switch (10) to the desired setting: FORWARD  or REVERSE 
  2. When the machine is turned off, restart it by turning the Running Switch (11) to START.

When the machine stops at the barricade, the Direction Switch (10) must be turned to the opposite direction or to AUTOREVERSE position before restarting the machine with the Running Switch (11).



 It is mandatory to install the two barricades before using the part circle pivot. It is required to use barricades to protect the machine from any obstacles, e.g. roads, trees, buildings, channels, etc.

### FORWARD/REVERSE OPERATION

If you want to change the direction of the machine while it is running, follow these instructions:



1. Turn the Direction Switch (10) to FORWARD or REVERSE position.
2. Turn the Running Switch (11) to START.
3. Check the Operation Indicator Lights (5) to verify that the pivot is working properly and in the selected direction.
4. Set the Direction Switch (10) to the AUTOREVERSE position only if you want to enable this function when reaching the barricades.


### HOW TO SET UP THE PANEL SWITCHES TO RUN WITH iControlRemote

1. Turn iControlRemote Switch (13) to ON to power the controller.
2. Select the desired speed in the Percentage Timer (1).
3. Turn the Power Auto Start Switch (8) to OFF  to prevent the machine from starting automatically by power.
4. Set the Irrigation Switch (9) to the DRY  position to allow the controller to run without water pressure.
5. Set the Direction Switch (10) to the AUTOREVERSE position to allow the controller to change the direction.
6. Set the Running Switch (11) to the ON position to allow the controller to start the machine.


### POWER AUTO START OPTION


The Power Auto Start Switch (8) allows the machine to automatically restart after loss of power.

- Turning off auto start option: set the position to OFF  to prevent the machine from automatically restarting after a power outage.
- Turning on auto start option: set the position to ON  to allow the machine to automatically restart after a power failure.

 During the off-season or a period without irrigation, the Running Switch (11) must be set to the OFF position to prevent the machine from starting after a possible outage of power.

### WATER APPLICATION

 Check the actual pressure of the system and make sure it matches the proscribed pressure calculated in the Sprinkler Chart which is included with your system.

 Check the system pressure at the end of the system.

### ICONTROL REMOTE FUNCTION

The iControlStandard panel is fitted to run with the iControlRemote option (13).

1. OFF: disable iControlRemote option.
2. ON: enable iControlRemote option.

# 03 Irrigation system maintenance

# 04 Warnings of risks of injury

## ELECTRICAL

- Verify the machine voltage and the connections of the electrical boxes and control panel terminal blocks.
- In a towable system, if you move or shift the base, make sure the ground connection is installed correctly again.

## STRUCTURE

- Check the alignment of the machine regularly.
- Review the condition and tightness of bolts and nuts.
- Check the inter-span hoses and the span and overhang drains.
- Ensure that there are no rodent or insect nests in any of the machine apertures.

## SPRINKLER PACKAGE

- Verify the pressure available in the systems and their flow.
- Check the general condition of the sprinklers and the correct nozzle position with each season.
- Verify that there are no leaks and that all the sprinklers are working properly.
- Verify that the opening and closing mechanism for the end gun work properly (if applicable).
- Check the pressure in the last sprinkler.

## TIRES

- Check the tire pressure and tightness of the lugs frequently (every 1000 hours during irrigation season)
- The recommended pressure for 14.9 x 24 tires is 16-20 PSI [110-138 Kpa]

## OIL LEVELS, LUBRICANTS AND GREASING

- Review the oil level in the gearboxes and gear motors often.
- Use a lubricant EP 85W140, which meets the requirements API GL-5 or MIL-L-2105 C.
- Avoid EP oils which contain sulfur or chlorine based additives.
- Inspect and grease moving parts when necessary (swivel elbow, collector ring)
- Use waterproof grease.

## CLEANING

- The pipes of the pivot should be flushed clean of grit and any residue regularly, especially after the installation, at the start and end of the irrigation season and after any repair.

## RECOMMENDATIONS FOR THE OFF SEASON

- Search for flat areas to park the pivot and avoid leaving it on slopes.
- If there is livestock, put some protection around the pivot.
- Avoid parking the pivot next to public roads to prevent robberies.
- In areas with risk of flooding, park the pivot in elevated areas or remove the electrical components.
- Park the pivot in the direction of the prevailing wind to reduce its exposure to wind.
- Turn OFF the Disconnect Switch (4) on the panel. For systems that include the iControlRemote device with a cable thief alarm, keep the Disconnect Switch (4) ON and turn the Running Switch (11) to OFF to prevent the machine from starting.
- In places with major temperature changes, disconnect the machine at the couplings to allow the metal to contract.
- Clean the interior pipework of grit and residue. Open all the drains and allow water to run continuously through the whole pivot.
- To prevent freezing, make sure to remove all the water from the pipework.
- Check that the lugs of the wheels are at the right torque.

The pivot power supply can be provided by either the electric utility company or by an engine driven generator. The system requires 460/480 volts at 60Hz or 380/400 volts at 50Hz and 3 electric power phases for operation. The maximum operating voltage must not exceed 504 volts AC, nor should it be operated at less than 375 volts.



Ensure the system is correctly grounded BEFORE supplying current to the pivot.



The working voltage of this machine (480/380 V) can be lethal. Electrical work should only be performed by qualified personnel.



Disconnect the equipment and make sure it is stopped before carrying out any work or maintenance.



ALWAYS install the field-end barriers before using the equipment, for sectoral pivots.



The machine, and therefore all its spans, stop or start up intermittently.



Do not handle the equipment if the safety circuit has been disabled as the machine might fall over.



Before starting the system, ensure there is no kind of obstacle in the run of the equipment such as vehicles, tractors or any other element that could damage the pivot structure or be damaged by it.



Keep away from all moving elements and do not touch them, especially in the tower transmission zones.



Take extra care if performing any kind of maintenance when the equipment is close to high-voltage power lines.



Do not irrigate near high-voltage power lines.



Do not climb the towers while the machine is moving, and do not jump from them.



Keep away from and do not handle this equipment with electrical apparatus during thunderstorms, as many of its components are conductors.

### About this Quick Start Guide:

Information contained in this guide applies to iControlStandard panels. AIS reserves the right to make changes at any time without notice and without incurring any obligation.

For more information, please check the Pivot Operation Manual.

[www.western-irrigation.com](http://www.western-irrigation.com)  
[www.piercecorporation.com](http://www.piercecorporation.com)



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