

Digital Control Accessories



<http://waterheatertimer.org/Intermatic-trippers-and-parts.html#P1353>

I-Wave Mechanisms — Three Circuit Clock P1353ME

Designed as part of the I-Wave system and for aftermarket and retro-fit applications, the P1353ME can be installed into almost any Intermatic enclosure and has the ability to program up to three circuits. Choose between six pre-programmed modes of operation, which include single speed pump or 2-speed pump/cleaner pump combinations. In addition, programmed modes that include auxiliaries can control pumps up to 3 HP as well as underwater, landscape and/or fountain lighting. Countdown and Override features allow cycle interruptions when pool/spa service is required. All timing and protection associated with filter pump/cleaner pump combinations and two-speed pumps has already been integrated into the software.

- 120 or 208-240 volt input voltage
- Memory backup
- Freeze protection
- Heater protection (fireman switch)
- LCD readout
- Three ON/OFF events per day per circuit
- Shipping weight - 3 lbs (1.4 kg)
- Agency approval - CSA/C-US

CONTACT RATINGS — EACH CIRCUIT, ALL MODES

- 20A Resistive, 120/240 VAC., 50/60 Hz
- 20A FLA@120 VAC, 96A LRA@120 VAC, 50/60 Hz
- 17A FLA@240 VAC, 80A LRA@120 VAC, 50/60 Hz
- 5 Amps Tungsten, 120/240 VAC, 50/60 Hz
- 5 Amps Ballast, 120/240 VAC, 50/60 Hz

Valve/Pump Switch P4243ME

Designed as part of the I-Wave system and for aftermarket and retro-fit applications, the P4243ME is most suited for controlling up to two different circuits associated with pool/spa combinations but can also be used to control all the equipment typically needed in connection with water features, water gardening, solar heating and other similar applications. This unit snaps into almost any Intermatic enclosure and controls pumps up to 3HP, 24 volt supply for up to three valve actuators, automatic HIGH/LOW water temperature selector, heater connection circuit and push button control for each load with indicator lights on the face of switch. In addition, the unit has connections for a hard wired or wireless remote and a master switch controller.

- 120 or 208-240 volt input voltage
- Controls up to three valve actuators
- Controls two circuits
- Switches heater thermostat
- Remote control capabilities
- Shipping weight - 3 lbs (1.4 kg)
- Agency approval - CSA/C-US

Mode 1 – (Aux1, Aux2, Aux3)

The time switch is 3-circuit switch with all three switches controlling auxiliary devices.

Mode 2 – (Pump High, Pump Low, Aux3)

The time switch is a 2-circuit switch with the 1st & 2nd switch controlling a two-speed pump. The 3rd switch is controlling any auxiliary device. All protection associated with a two speed pump is preprogrammed into this mode.

Mode 3 – (Pump, Aux2, Cleaner Pump)

The time switch is a 3-circuit switch with the 1st switch controlling a single speed pump, the 2nd switch controls any auxiliary device, and the 3rd switch operates a booster/cleaner pump. All timing & protection associated with a filter pump/cleaner pump combination is preprogrammed into this mode.

Mode 4 – (Pump High, Pump Low, Cleaner Pump)

The time switch is a 2-circuit switch with the 1st & 2nd switch controlling a 2-speed pump. The 3rd switch is controlling a booster/cleaner pump. All protection associated with a 2-speed pump and booster/cleaner pump combination is preprogrammed into this mode.

Mode 5 – (Pump L1, Pump L2, Aux3)

The time switch is a 2-circuit switch with the 1st & 2nd switch controlling a 240V pump, where both L1 & L2 are required to be disconnected when the pump is OFF. The 3rd switch is controlling any auxiliary device.

Mode 6 – (Aux1, Aux2, Aux3)

Identical to Mode 1, in which each of the three single pole circuits are defined generically and can control any load within each of its individual circuit ratings, with all three circuits acting independent of each other. However, with Mode 6, the fireman switch closes only when circuit 1 (the filter pump) is manually turned on — not when the clock turns it ON. This mode is useful when you have Circuit 1 connected to a circulation pump in the spa. When the spa is not in use, the clock circulates the water to filter it, but does not turn ON the heater. When the spa is in use, the heater is also turned ON by manually switching Circuit 1.



P1353ME



P4243ME

CONTACT RATINGS — EACH CIRCUIT

- 17A Resistive, 120/240 VAC., 50/60 Hz
- 1.5 HP @ 120 VAC., 50/60 Hz
- 3.0 HP @ 240 VAC., 50/60 Hz
- 10 Amp Tungsten, 120/240 VAC, 50/60 Hz
- Valve Actuator Supply: 24VAC 40VA



Digital Control Accessories



PE650



PE950



133PE1484A

I-Wave Remote Controls Panel Mounted Transceiver (PE650) with Antenna (PA118)

Utilizing ground breaking Z-Wave technology, Intermatic's Wireless Panel Mounted Transceiver and Hand-Held Transceiver provides for reliable two-way communication and long range ability that is unmatched by any other wireless protocols.

The main function of the Panel Mounted Transceiver is to take commands from the Wireless Hand Held Transceiver (PE950) and hand them off to two mechanisms (P1353ME and/or P4243ME).

This unit can control:

- One P1353ME unit and one P4243ME unit
- One or Two P1353ME units
- One or Two P4243ME units
- Gas or Electric heater Thermostat

In cases where the two devices are too far apart for direct communication, a Transceiver Repeater Module (HA04C) can be installed and will relay commands between the two devices. You can also purchase a (PA121) 35-ft. Antenna Extension Cable Assembly when structures impede transmissions between the Panel Mounted Transceiver and Hand Held Transceiver.

Wireless Hand-Held Transceiver (PE950)

The main function of the Wireless Hand-Held Transceiver is to transmit user commands to the Panel-Mounted Transceiver (PE650) and display the status of the equipment, pool and spa water temperature, pool and spa thermostat set point, heating status and overall communication status. The device can control up to five loads, typically:

- The three loads in the Three-Circuit Clock
- The two relays in the Valve/Pump Switch, usually water temperature controls for pool/spa
- The actuators that switch between pool and spa

The unit floats if thrown in the pool or spa, is water-submersible, shock resistant and requires three (3) AA batteries. Expected battery life is approximately one year in typical use.

The Wireless Hand-Held Transceiver (PE950) can only communicate with the Panel-Mounted Transceiver (PE650) and Transceiver Repeater Module (HA04C) and is compatible with no other hardware. In addition, when the components of a specific system are linked together into a network, communication with another neighboring system cannot occur. Up to five PE950 units can be used in a single installation.

Three-Button Wired Remote Control (133PE1484A)

The Three-Button Wired Remote Control (133PE1484A) plugs into either the Three-Circuit Clock (P1353ME) or Valve/Pump Switch (P4243ME) and is normally installed as a spa-side remote. Most often the remote controls the filter pump, jets and lights, plus includes indicator lights on the face of the button. When installed as part of a system, it replaces the wireless method of controlling the three circuits within the mechanism. The Three-Button Wired Remote Control can also be installed where a third mechanism is needed in the enclosure, since the Wireless Hand-Held Transceiver (PE950) can only control two mechanisms.

Digital Control Accessories



I-Wave Accessories Water Temperature Sensor (PA122)

The Intermatic Water Temperature Sensor (PA122) installs in the inlet side of the heater and monitors both pool and spa water temperature, depending on the position of the diverter valves. Installation is necessary for the thermostatic control to work. The sensor plugs into the Panel Mounted Transceiver (PE650) and the water temperature is displayed on the Hand-Held Transceiver (PE950).

Freeze (Air Temperature) Sensor (178PA28A)

Add the Intermatic Freeze or Air Temperature Sensor (178PA28A) to installations where below-freezing outdoor temperatures are a concern. The sensor is designed to protect the pool and spa equipment and plumbing against freeze damage. The sensor plugs into the circuit board on the back of the P1353ME and turns ON the filter pump when air temperature drops below the programmed temperature. The freeze programming mode will not appear unless the sensor is plugged into the clock.

35-ft. Antenna Extension Cable Assembly (PA121)

When a structure impedes transmission between the Panel-Mounted Transceiver (PE650) and Handheld Transceiver(s) (PE950), you can use the 35-ft. Antenna Extension Cable Assembly (PA121) to relocate the antenna from the Panel-Mounted Transceiver to the area of operation, ensuring that communication between the Hand-Held unit and the control center is successful.

Transceiver Repeater Module (HA04C)

The Transceiver Repeater Module (HA04C) ensures that no problems in reception occur between the Hand-Held Controller(s) (PE950) and the Panel-Mounted Transceiver (PE650). Reception is affected by distance (about 100 feet, direct line of sight) and by physical obstacles (like brick walls or structures). However, by plugging in a Transceiver Repeater Module where necessary, long distances or physical obstructions can be overcome.

| Model # | Description | Case Qty. | Case Weight |
|----------|---------------------------|-----------|-------------------|
| PA122 | Water temperature sensor | 1 | 0.3 lbs. (0.1 kg) |
| 178PA28A | Freeze sensor | 1 | 0.3 lbs. (0.1 kg) |
| PA121 | Antenna extension | 1 | 3.0 lbs. (0.1 kg) |
| HA04C | Repeater module - outdoor | 6 | 4.5 lbs. (2.0 kg) |
| PA120 | Relay - DPST, 24VAC coil | 1 | 0.4 lbs. (0.2 kg) |
| 143T145A | Relay - DPST, 24VDC coil | 1 | 0.4 lbs. (0.2 kg) |



PA122



178PA28A



Antenna Extension Cable Accessory
PA121



HA04C



143T145A



PA120



Digital Controls

PE100 Series Mini PE Series Digital Pool or Spa Controls

Intermatic's Mini-PE Series Digital Controls couple the standard features of our compact T100 Series mechanical time switches with the convenience of digital automation. One of Intermatic's latest innovations, the P1353ME allows the ability to program up to three circuits. Beyond single and two-speed pump/booster pump applications, auxiliary modes can control pumps up to 3HP as well as underwater, garden and/or fountain lighting.

Countdown and override features allow cycle interruptions when pool/spa service is required. All timing and protection associated with filter pump/booster pump combos and two-speed pumps has already been integrated into the digital software. The Mini-PE Series is available in both metal and plastic enclosures and with a wired remote command, freeze probe or both. See chart below for details.

Intermatic makes it simple to convert your Mini-PE Series Digital Control into a Wireless Control System. Simply install a Panel Mounted Transceiver (RC650) and Hand-Held Transceiver (PE950) to any Mini-PE Series control, which allows the system to display the status of each of the three circuits as well as pool or spa water temperature, pool or spa thermostat set point, heating status and overall communication status.

Applications

- Single Speed Pump/Booster Pump Combos
- Water Feature Applications
- Pool & Spa Lighting
- Two-Speed Pump/Booster Pump Combos
- Garden & Fountain Applications
- Landscape Lighting

Specifications

Case: NEMA 3R rated for indoor-outdoor installation. 9-3/8" (23.8 cm) high, 5-1/2" (14.0 cm) wide, 3-5/8" (9.2 cm) deep in beige finish. "P" suffix models are same dimensions, except made from outdoor grade plastic.

Knockouts: Combination 1/2" – 3/4" nominal knockouts, one on back and each side of case and two on bottom.

Switch Rating (each circuit): 20 Amp Resistive, 120/240 VAC, 50/60 Hz; 20 Amp FLA @ 120 VAC, 96 Amp LRA @ 120 VAC, 50/60 Hz; 17 Amp FLA @ 240 VAC, 80 Amp LRA @ 240 VAC, 50/60 Hz; 5 Amp Tungsten, 120/240 VAC, 50/60 Hz; 5 Amp Ballast, 120/240V VAC, 50/60 Hz

Shipping Weight: 3.7 lbs (1.7 kg)

Agency Approval: CSA/C-US



PE153



PE153W



PE153F



PE153WF

| Model # | Description | Switch | Clock Supply Volts 50/60 Hz |
|----------|--|----------|--------------------------------|
| PE153 | Digital Time Clock in Metal Enclosure | 3 - SPST | 120 or 240 |
| PE153W | Digital Time Clock in Metal Enclosure with 100' Wired Remote Command | 3 - SPST | 120 or 240 |
| PE153F | Digital Time Clock in Metal Enclosure with Freeze Protection Probe | 3 - SPST | 120 or 240 |
| PE153WF | Digital Time Clock in Metal Enclosure with 100' Wired Remote Command & Freeze Protection Probe | 3 - SPST | 120 or 240 |
| PE153P | Digital Time Clock in Plastic Enclosure | 3 - SPST | 120 or 240 |
| PE153PW | Digital Time Clock in Plastic Enclosure with 100' Wired Remote Command | 3 - SPST | 120 or 240 |
| PE153PF | Digital Time Clock in Plastic Enclosure with Freeze Protection Probe | 3 - SPST | 120 or 240 |
| PE153PWF | Digital Time Clock in Plastic Enclosure with 100' Wired Remote Command & Freeze Protection Probe | 3 - SPST | 120 or 240 |

NOTE: See page 16 for PE650 and PE950 specifications and page 15 for P1353ME specifications



PE 10000 Series Digital Pool or Spa Control Centers

For pool, spa or water feature applications, the PE Series Digital Controls include one P1353ME mechanism that controls a total of three timed circuits, including single speed or two-speed filter pumps, pool lights, spa lights and landscape lights. Countdown and override features allow programs to be interrupted for service and automatically resumed without reprogramming your system.

Intermatic makes it simple to convert your PE Series Digital Control into a Wireless Control System. Simply install a Panel-Mounted Transceiver (RC650) and a Hand-Held Transceiver (PE950) to any PE Series Control, which allows the system to display the status of each of the three circuits as well as pool or spa water temperature, pool or spa thermostat set point, heating status and overall communication status.

Applications

- Single speed pump/booster pump combos
- Water feature applications
- Pool & spa lighting
- Two-speed pump/booster pump combos
- Garden & fountain applications
- Landscape lighting

Specifications

Case: 14-3/4" (37.5 cm) high x 14-3/4" (37.5 cm) wide x 4-1/4" (10.8 cm) deep, 0.048" steel with electrostatically applied light beige finish.

Knockouts: One 1.09 diameter through hole, three 1/2" knockouts, seven combination 1/2"-3/4" knockouts, and two combination 3/4"-1" knockouts on the bottom. Two combination 1/2"-3/4" on the left side and one combination 3/4"-1" and one combination 1/2"-3/4" on the back. One knockout 1-3/4" x 2-3/4" on the right side for mounting switches or GFCI.

Center Rating: 90 Amp per leg, 180 Amp. maximum, 120/240 VAC or 120/208 VAC single phase

Switch Rating: P1353ME - See page 15

Shipping Weight: See table

Agency Approval: CSA/C-US

| Model # | Description/Mechanism | Switch | Clock Supply Volts 50/60 Hz | Shipping Weight |
|----------|------------------------|--------|-----------------------------|-------------------|
| PE10000 | None | None | 120 or 240 | 16.3 lbs (7.4 kg) |
| PE15300 | P1353ME | 3-SPST | 120 or 240 | 16.3 lbs (7.4 kg) |
| PE15300F | P1353ME w/Freeze Probe | 3-SPST | 120 or 240 | 16.3 lbs (7.4 kg) |

NOTE: See page 16 for PE650 and PE950 specifications and page 15 for P1353ME specifications



PE10000



PE15300



PE15300F



Digital Controls



PE20000



PE25300



PE25300F

PE20000 Series Digital Pool or Spa Control Panels

For pool, spa or water feature applications, the I-Wave PE3 Series Wireless Control System includes one P1353ME mechanism that controls a total of three timed circuits, including single speed or two-speed filter pumps, cleaner/booster pumps, pool lights, spa lights and landscape lights. Countdown and override features allow programs to be interrupted for service and automatically resumed without reprogramming your system.

Intermatic makes it simple to convert your PE Series Digital Control into a Wireless Control System. Simply install a Panel Mounted Transceiver (RC650) and a Hand-Held Transceiver (PE950) to any PE Series Control, which allows the system to display the status of each of the three circuits as well as pool or spa water temperature, pool or spa thermostat set point, heating status and overall communication status.

Applications

- Single Speed Pump/Booster Pump Combos
- Water Feature Applications
- Pool & Spa Lighting
- Two-Speed Pump/Booster Pump Combos
- Garden & Fountain Applications
- Landscape Lighting

Specifications

Case: 16-1/2" (41.9 cm) high x 10-7/8" (27.6 cm) wide x 4-1/4" (10.8 cm) deep, 0.048" steel with electrostatically applied light beige finish.

Knockouts: One 1.09 diameter through hole, six combination 1/2"-3/4" knockouts, and three combination 3/4"-1" knockouts on the bottom. Two combination 1/2"-3/4" on the left side and one combination 3/4"-1" on the back. One knockout 1-3/4" x 2-3/4" on the right side for mounting switches or GFCI.

Panel Rating: 60 Amp 120/240 V.A.C or 120/208 VAC single phase

Switch Rating: P1353ME - See page 15

Shipping Weight: See table

Agency Approval: CSA/C-US

| Model # | Description/Mechanism | Switch | Clock Supply Volts 50/60 Hz | Shipping Weight |
|----------|------------------------|--------|-----------------------------|-------------------|
| PE20000 | None | None | 120 or 240 | 20.0 lbs (9.0 kg) |
| PE25300 | P1353ME | 3-SPST | 120 or 240 | 20.0 lbs (9.0 kg) |
| PE25300F | P1353ME w/Freeze Probe | 3-SPST | 120 or 240 | 20.0 lbs (9.0 kg) |

Note: See page 16 for PE650 and PE950 specifications and page 15 for P1353ME specifications



PE30000 Series Digital Pool or Spa Control Panels

For pool, spa or water feature applications, the PE Series Digital Controls includes one P1353ME mechanism that controls a total of three timed circuits, including single-speed or two-speed filter pumps, cleaner/booster pumps, pool lights, spa lights and landscape lights. Countdown and override features allow programs to be interrupted for service and automatically resumed without reprogramming your system.

Intermatic makes it simple to convert your PE Series Digital Control into a Wireless Control System. Simply install a Panel Mounted Transceiver (RC650) and a Hand-Held Transceiver (PE950) to any PE Series Control, which allows the system to display the status of each of the three circuits as well as pool or spa water temperature, pool or spa thermostat set point, heating status and overall communication status.

Applications

- Single speed pump/booster pump combos
- Water feature applications
- Pool & spa lighting
- Two-speed pump/booster pump combos
- Garden & fountain applications
- Landscape lighting

Specifications

Case: 22" (55.9 cm) high x 14-3/4" (37.5 cm) wide x 4-1/4" (10.8 cm) deep, 0.048" steel with light beige finish.

Knockouts: One 1.09 diameter through hole, six combination 1/2"-3/4" knockouts, 2 combination 3/4", 1", 1-1/4" knockouts, four 1/2" knockouts on the bottom. Two combination 1/2"-3/4" knockouts on the left side and four combination 1/2"-3/4" knockouts, two combination 3/4"-1" on the back. One knockout 1-3/4" x 2-3/4" on the right side for mounting switches or GFCI.

Panel Rating: 80 Amp 120/240 VAC or 120/208 VAC single phase

Switch Rating: P1353ME - See page 15

Shipping Weight: See table

Agency Approval: CSA/C-US

| Model # | Description/Mechanism | Switch | Clock Supply Volts 50/60 Hz | Shipping Weight |
|---------|-----------------------|--------|-----------------------------|-------------------|
| PE30000 | None | None | 120 or 240 | 16.3 lbs (7.4 kg) |
| PE35300 | P1353ME | 3-SPST | 120 or 240 | 19.0 lbs (8.6 kg) |

Note: See page 16 for PE650 and PE950 specifications and page 15 for P1353ME specifications

PE1500RC Series Mini-Wave Wireless Pool/Spa Control Panels

For pool/spa combinations or pool/water feature combinations, the PE1541RC includes a PB313E one circuit electronic timer for controlling the filter pump, two PE24VA valve actuators, Wireless Panel Mounted Transceiver (PE650) and Hand-Held Transceiver (PE950), which allows the system to display the status of each of the four on-demand circuits, pool and spa water temperature, pool and spa thermostat set point, heating status and overall communication status. PE1501RC does not include actuators and is designed for pool or spa applications.

Specifications

Panel Rating: 100 Amp 120/240 VAC or 120/208 VAC single phase

Switch Rating: 17A Resistive, 120/240 VAC., 50/60 Hz; 1.5 HP @ 120 VAC., 50/60 Hz; 3.0 HP @ 240 VAC., 50/60 Hz; 10 Amp Tungsten, 120/240 VAC, 50/60 Hz

Shipping Weight: 24.3 lbs. (10.9 kg)

Agency Approval: CSA/C-US

| Model # | Description/Mechanism | Circuits | Actuators | Switch | Clock Supply Volts 50/60 Hz |
|----------|-----------------------|----------|-----------|--------|-----------------------------|
| PE1541RC | PB313E | 4 | 2 | 4-DPST | 120 or 240 |
| PE1501RC | PB313E | 4 | None | 4-DPST | 120 or 240 |

Note: See Page 16 for PE650 and PE950 specifications



PE30000



PE35300



PE1541RC
"PE4" Series



Digital Controls

PE40000 Series I-Wave Wireless Pool/Spa Control Panels

For pool, spa or water feature applications, the PE Series Digital Controls includes one P1353ME mechanism that controls a total of three timed circuits, including single speed or two-speed filter pumps, cleaner/booster pumps, pool lights, spa lights and landscape lights. Countdown and override features allow programs to be interrupted for service and automatically resumed without reprogramming your system.

For pool/spa combinations or pool/water feature combinations, the PE45343RC includes all the features of the PE Series Digital Controls plus two PE24VA valve actuators, Wireless Panel Mounted Transceiver (PE650) and Hand-Held Transceiver (PE950) which allows the system to display the status of each of the five circuits (3 timed and 2 on-demand), pool and spa water temperature, pool and spa thermostat set point, heating status and overall communication status.

Applications

- Pool/Spa combinations
- Fountains
- Water features
- Pool/spa lighting
- Pool/water feature combinations
- Landscape lighting

Specifications

Case: 26.0" (66.3 cm) high x 18.0" (45.9 cm) wide x 5.5" (14.0 cm) deep, 0.048" steel with electrostatically applied light beige finish.

Knockouts: Two combination 3/4"-1"-1-1/4" and eleven combination 1/2"-3/4" knockouts on the bottom. Two 3/4"-1" combination and four combination 1/2"-3/4" knockouts on the back. Low voltage compartment has two combination 1/2"-3/4" knockouts and one 3/4" hole with a shutter bushing installed. Two combination 3/4"-1" and one combination 1/2"-3/4" knockouts. One 1-3/4" x 2-3/4" knockout on the right side.

Panel Rating: 125 Amp 120/240 V.A.C. or 120/208 V.A.C. single phase

Switch Rating: P1353ME and P4243ME – see page 15

Shipping Weight: See Table

Agency approval: CSA/C-US

| Model # | Mechs/Description | Circuits | Transformer | Clock Supply Volts 50/60 Hz | Shipping Weight |
|--------------------|---------------------|----------|-------------|--------------------------------|----------------------|
| PE40000 | None | None | None | 120 or 240 | 44.0 lbs. (19.8 Kg.) |
| PE45300 | P1353ME | 5 | None | 120 or 240 | 44.0 lbs. (19.8 Kg.) |
| PE45343RC | P1353ME and P4243ME | 5 | None | 120 or 240 | 44.0 lbs. (19.8 Kg.) |
| PE45343RCT1 | P1353ME and P4243ME | 5 | 100 Watt | 120 or 240 | 56.0 lbs. (25.2 Kg.) |
| PE45343RCT3 | P1353ME and P4243ME | 5 | 300 Watt | 120 or 240 | 61.0 lbs. (27.5 Kg.) |

NOTE: See page 16 for PE650 and PE650 and PE950 specifications and page 15 for P1353ME and P4243ME specifications



PE40000



PE45300



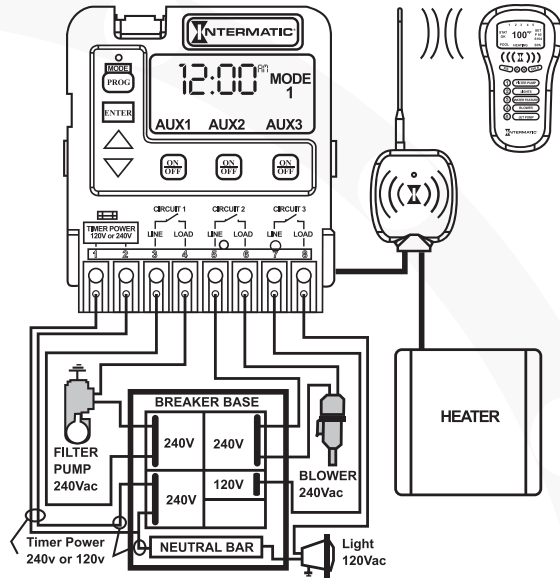
PE45343RC
"PE5" Series



Digital Control Applications



I-Wave Mechanism — Three Circuit Clock P1353ME



Mode 1 – (Aux1, Aux2, Aux3)

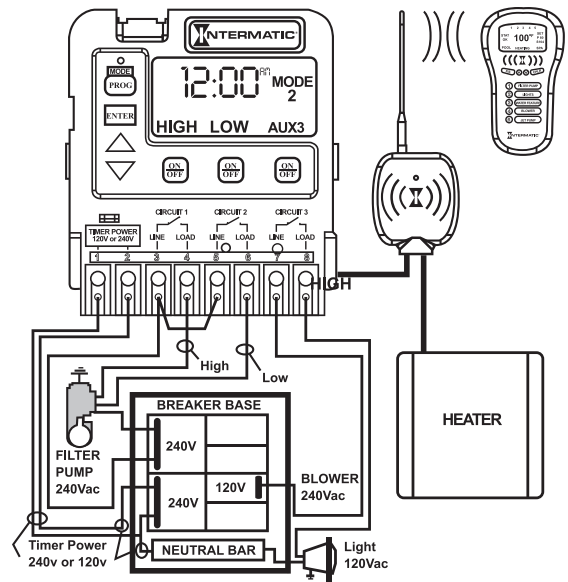
Each of the three single pole circuits are defined generically, and can control any load within each of its individual circuit ratings. All three circuits act independent of each other.

Applications – In Mode 1, the P1353ME Three Circuit Clock Mechanism is ideal for Pool or Spa only applications where each piece of equipment is independently controlled. With the addition of a PE650 Receiver and PE950 Transmitter, you can easily add wireless control to your equipment and in addition, add thermostat control to your Pool or Spa. Each of the three circuits are rated for up to 3HP and can handle both 120VAC and 240VAC equipment loads. This is by far the most versatile timer in the market today and can be added to almost all Intermatic control panels, both new and existing making it ideal for upgrades of an older Intermatic system.

Mode 2 – (Pump High, Pump Low, Aux3)

Circuit one and two are dedicated single pole outputs for a two-speed pump load. Circuits one and two will never be ON at the same time, consistent with a two-speed pump application. Circuit three is single pole circuit for a generic load, and independent of circuits one and two

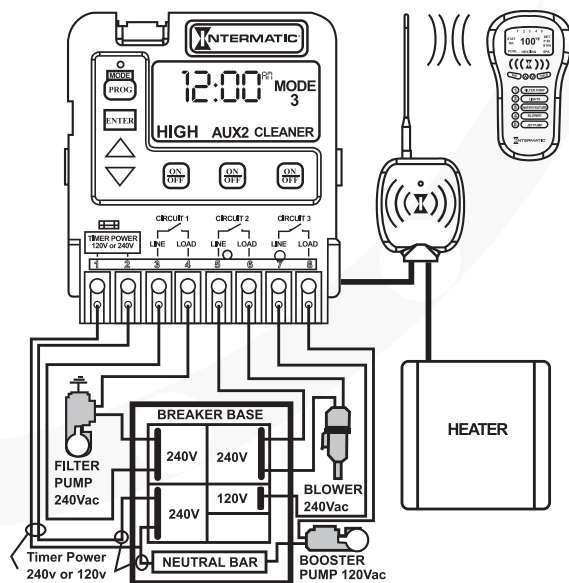
Applications – In Mode 2, the P1353ME Three Circuit Clock Mechanism acts as a Two Speed Controller and can be used for two speed pool applications but is ideal for Spa applications where the Filter Pump on the Spa is used for filtering in low speed and used for jets in high speed. The remaining circuit can be used for Spa lights or blower. With the addition of a PE650 Receiver and PE950 Transmitter, you can easily add wireless control to your equipment and in addition, add thermostat control to your Pool or Spa.



Mode 3 – (Pump, Aux2, Cleaner Pump)

Circuit one and three are dedicated single pole outputs for a single speed pump working with a pressure side cleaner pump. Circuit three will never come ON unless circuit one is ON for at least one minute, consistent with a pressure side cleaner pump. Circuit two is a single pole circuit for a generic load, independent of circuits one and three.

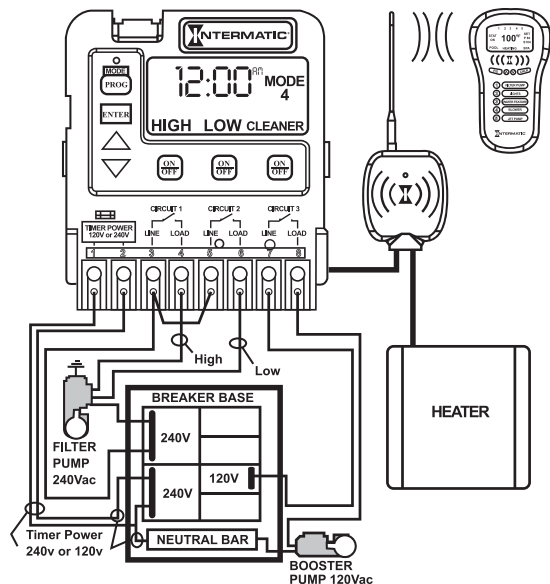
Applications – In Mode 3, the P1353ME Three Circuit Clock Mechanism is ideal for pool applications where a Booster/Cleaner pump is being controlled. In this mode, if the Filter Pump is OFF, the Booster/Cleaner pump will activate the Filter Pump first and then turn itself ON when activated. This ensures adequate priming of the Booster/Cleaner pump. The remaining circuit can be used for lights. With the addition of a PE650 Receiver and PE950 Transmitter, you can easily add wireless control to your equipment and in addition, add thermostat control to your Pool.





Digital Control Applications

I-Wave Mechanism — Three Circuit Clock P1353ME



Mode 4 – (Pump High, Pump Low, Cleaner Pump)

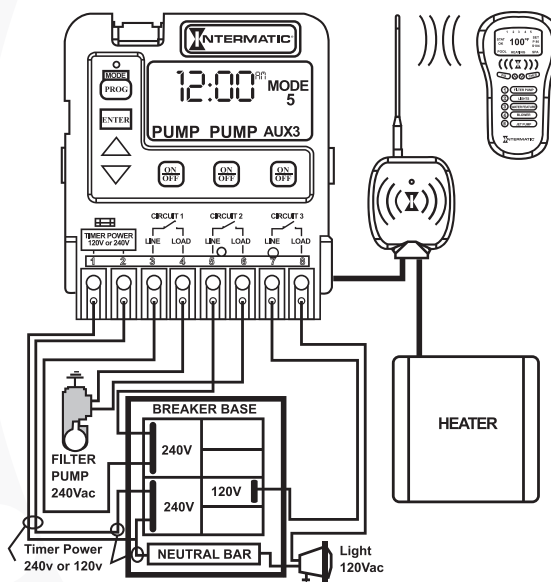
Circuit one and two are dedicated single pole outputs for a two-speed pump load. Circuits one and two will never be ON at the same time, consistent with a two-speed pump application. Circuit three is also a dedicated single pole output for a pressure side cleaner pump. Circuit three will never come ON unless circuit one is ON for at least one minute, consistent with a pressure side cleaner pump.

Applications – In Mode 4, the P1353ME Three Circuit Clock Mechanism acts as a Two Speed Controller and is ideal for pool applications where a Booster/Cleaner pump is being controlled. In this mode, if the Filter Pump is OFF or in low speed, the Booster/Cleaner pump will activate the Filter Pump in high speed first and then turn itself ON when activated. This ensures adequate priming of the Booster/Cleaner pump. With the addition of a PE650 Receiver and PE950 Transmitter, you can easily add wireless control to your equipment and add thermostat control to your Pool.

Mode 5 – (Pump, Pump, Aux3)

Circuit one and two are now coupled together making up one circuit capable of switching the power source to one pump. The ON/OFF button for circuit one now controls both circuit one and two simultaneously. The ON/OFF button for circuit two is disabled. Circuit three remains a single pole circuit for a generic load, and is independent of circuits one and two.

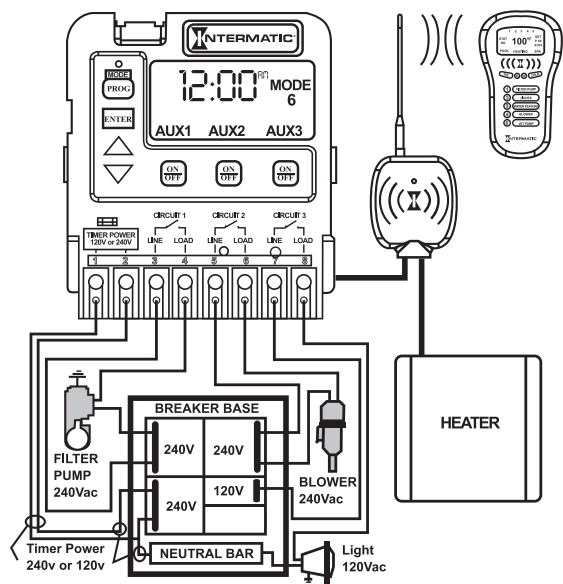
Applications – In Mode 5, the P1353ME Three Circuit Clock Mechanism acts as a two circuit clock to allow the breaking of both hot legs in a 240VAC equipment hookup on circuit #1. Even though the P1353ME is not a disconnect, and you can easily control a 240VAC load by breaking only one leg, some wiring situations may dictate breaking both legs of a 240VAC load. It is good service practice to always open the equipment circuit breaker and red tag it appropriately when working on pool or spa equipment. When working on equipment, DO NOT rely on any clock to disconnect power. The clock may be scheduled to turn ON during servicing.



Mode 6 – (Aux1, Aux2, Aux3)

Identical to Mode 1, in which each of the three single pole circuits are defined generically and can control any load within each of its individual circuit ratings, with all three circuits acting independent of each other. However, with Mode 6, the fireman switch closes only when Circuit 1 (the filter pump) is manually turned ON, not when the clock turns it ON. This mode is useful when you have Circuit 1 connected to a circulation pump in the spa. When the spa is not in use, the clock circulates the water to filter it, but does not turn ON the heater. When the spa is in use, the heater is also turned ON by manually switching Circuit 1 ON.

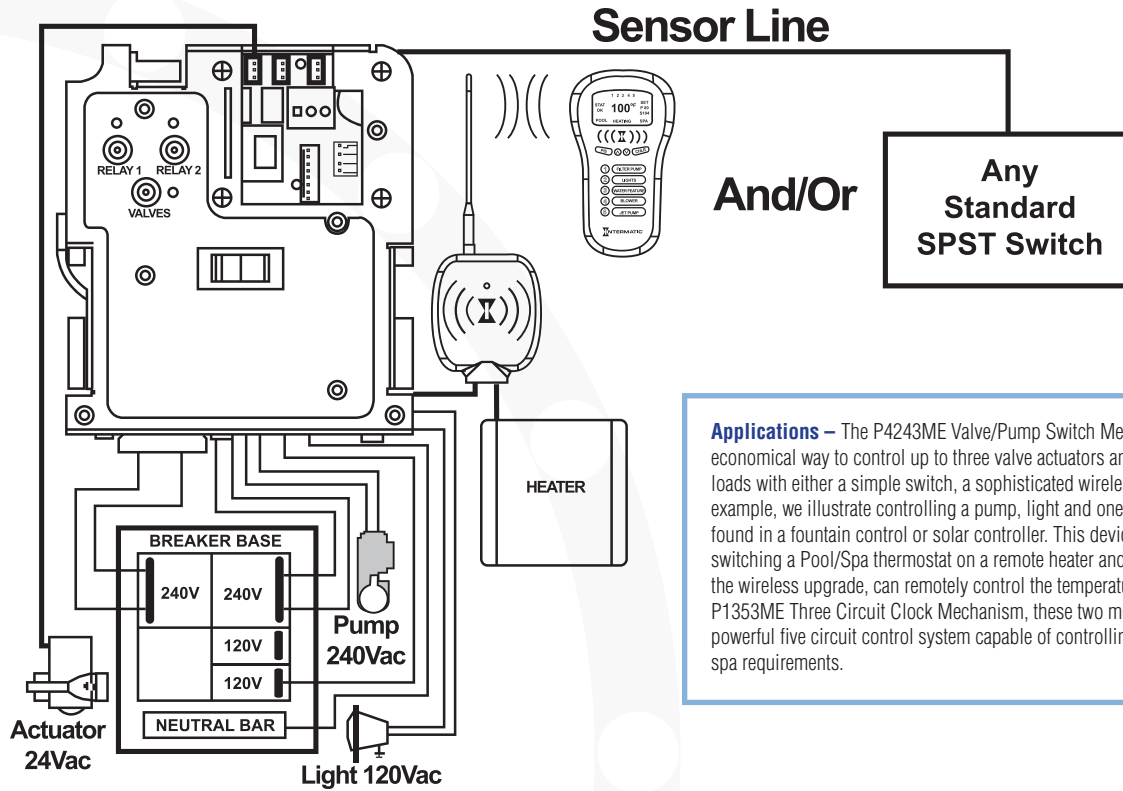
Applications – In Mode 6, the P1353ME Three Circuit Clock Mechanism is ideal for Spa applications where you need to control three pieces of individual equipment (Circulation Pump, Blower, Light), but do not want to heat the spa while it's not in use.



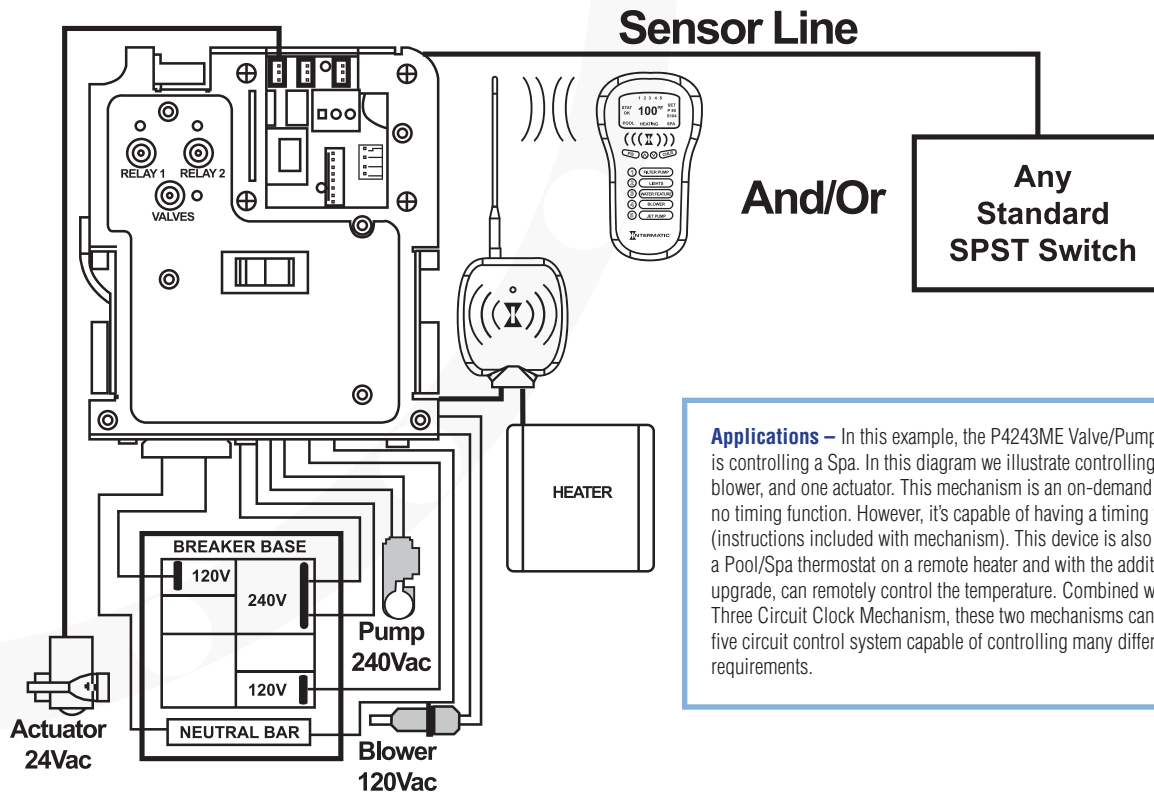
Digital Control Applications



I-Wave Mechanism — Valve/Pump Switch P4243ME



Applications – The P4243ME Valve/Pump Switch Mechanism gives you an economical way to control up to three valve actuators and two 3HP equipment loads with either a simple switch, a sophisticated wireless control or both. In the example, we illustrate controlling a pump, light and one actuator most commonly found in a fountain control or solar controller. This device is also capable of switching a Pool/Spa thermostat on a remote heater and with the addition of the wireless upgrade, can remotely control the temperature. Combined with the P1353ME Three Circuit Clock Mechanism, these two mechanisms can give you a powerful five circuit control system capable of controlling many different pool or spa requirements.



Applications – In this example, the P4243ME Valve/Pump Switch Mechanism is controlling a Spa. In this diagram we illustrate controlling a circulation pump, blower, and one actuator. This mechanism is an on-demand device meaning it has no timing function. However, it's capable of having a timing function if required (instructions included with mechanism). This device is also capable of switching a Pool/Spa thermostat on a remote heater and with the addition of the wireless upgrade, can remotely control the temperature. Combined with the P1353ME Three Circuit Clock Mechanism, these two mechanisms can give you a powerful five circuit control system capable of controlling many different pool or spa requirements.