

# TTC

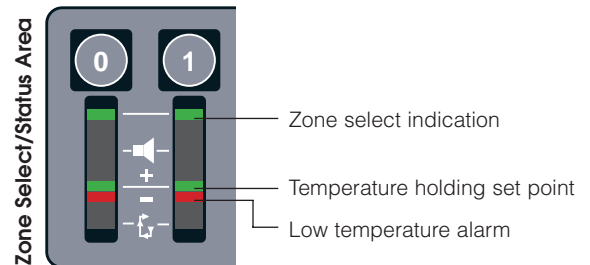
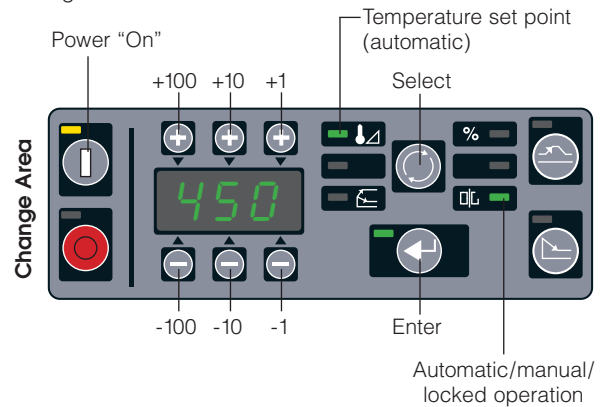
## International Interface

### Basic Operation



## TTC Start Up Procedure

- 1 Dry cycle mold, apply full tonnage, 3-4 times (pinch any wires in advance of operation)
- 2 Turn "On" main disconnect
- 3 Select "All" group.  
Change area – select temperature set point.  
Enter set point. Press enter.  
All zones will be set
- 4 Select "All" group.  
Change area – select automatic/manual/locked operation.  
Enter "0" for automatic. Press enter.  
All zones will be set to automatic
- 5 Select "All" group. Press power "On". Press enter.  
Apply power to manifolds first if required by manifold supplier
- 6 Zones will read a low temperature alarm.  
Zones are close or holding set point when the green temperature holding set point light is illuminated



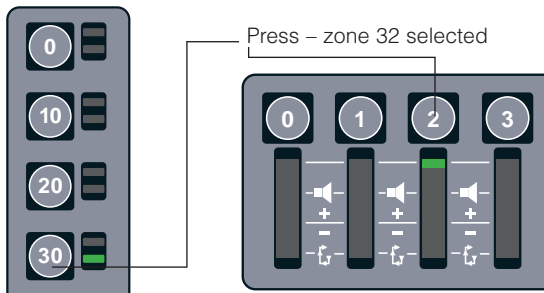
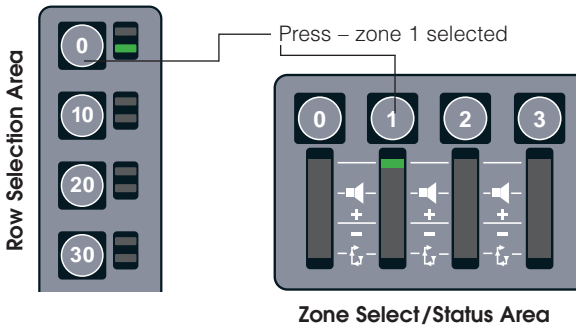
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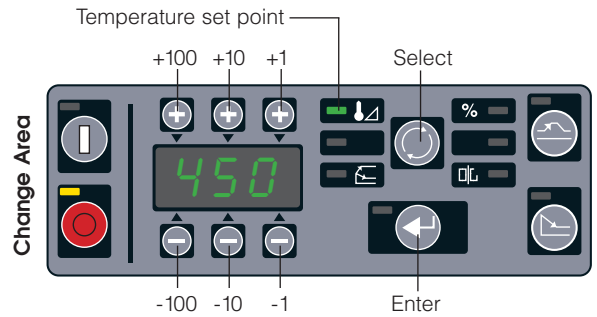
## How to Select a Zone



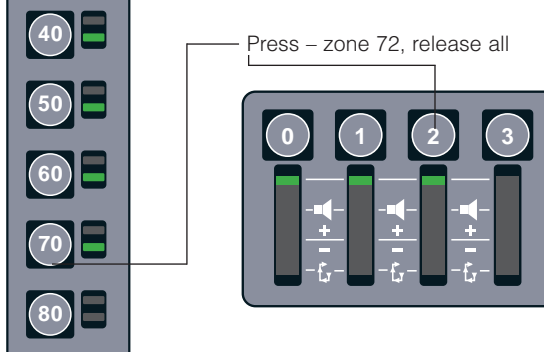
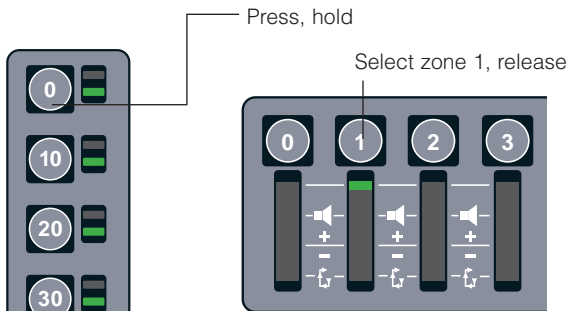
## How to Enter a Set Point

### Enter Automatic Temperature Set Point

- 1 Select zone(s)
- 2 Select temperature set point (automatic)
- 3 Enter temperature set point
- 4 Press enter to confirm



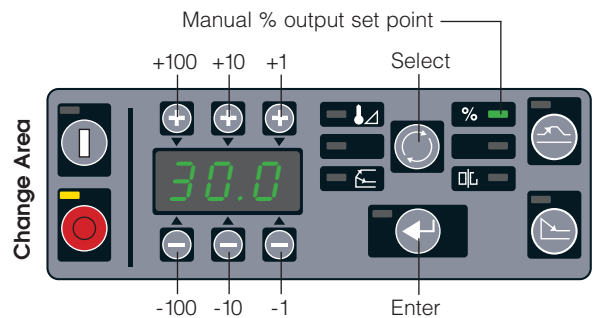
## How to Select a Group of Zones



Zones 1 - 72 selected  
Make any change to 1 - 72

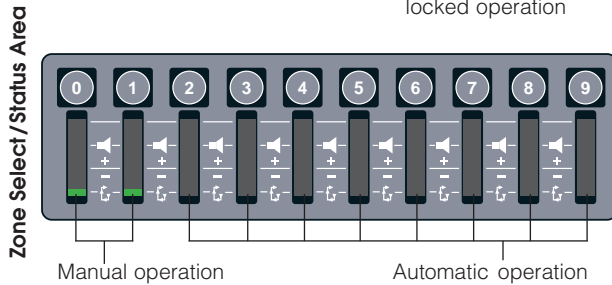
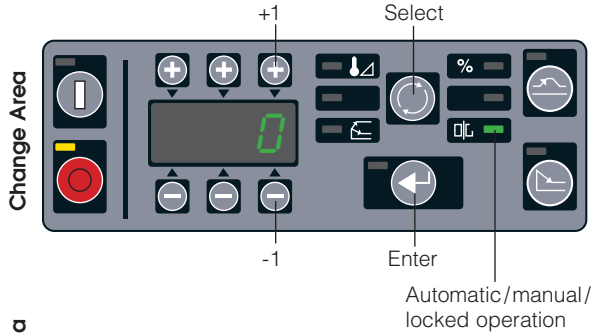
### Enter Manual % Output Set Point

- 1 Select zone(s)
- 2 Select manual % output set point
- 3 Enter manual % set point (0-100%)
- 4 Press enter to confirm



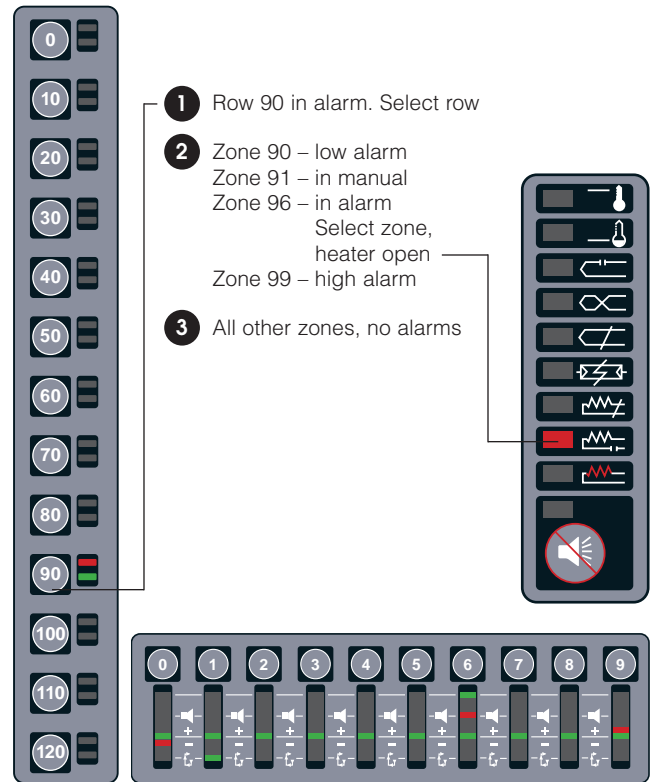
## How to Select Automatic or Manual

- 1 Select zone(s)
- 2 Select automatic/manual/locked operation
- 3 Enter "0" for automatic or closed loop control  
Enter "1" for manual or open loop control  
Enter "2" to lock the zone "Off"
- 4 Press enter to confirm



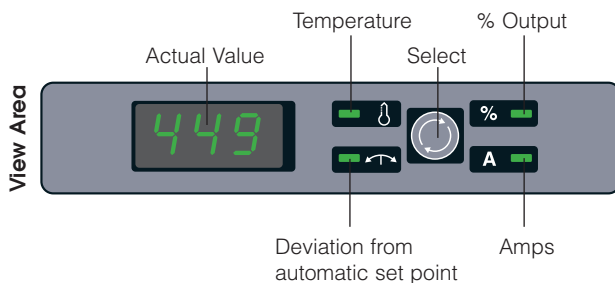
## How to View All Zones Quickly

- 1 Row 90 in alarm. Select row
- 2 Zone 90 – low alarm  
Zone 91 – in manual  
Zone 96 – in alarm  
Select zone,  
heater open  
Zone 99 – high alarm
- 3 All other zones, no alarms



## How to View the Process Details

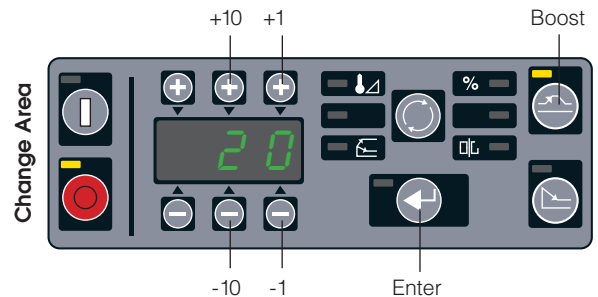
- 1 Select zone to view
- 2 Select item to view



## Why Boost? How to Boost

Boost temporarily raises a zone or a group of zones temperature (typically tips) to clear a cold slug on start up

- 1 Select zone(s)
- 2 Press boost. Enter boost amount. Press enter.
- 3 Zone(s) will boost 20°F/11°C (default) for one minute (default)



(To cancel boost, press boost)

**Row Selection Area**

0 Row selected

10

20 Row in alarm

30

**View Area**

Temperature

% Output

Actual value

Select

23.2

Deviation from automatic set point

Degree C if lit, Degree F if dark

Amps

**Group Selection Area**

"All Group" – Selects all zones in the system

"Custom Group" – Stores user zone group. Select zones to save, press custom group button until flashes (5 seconds)

**Change Area**

Power "On" (Lit when all unlocked zones are "On")

Automatic temperature set point change/view

Manual % output set point, change/view

+100 +10 +1

Select

%

Amps

-100 -10 -1

Enter

**Boost** – Temporary increase to zone(s) selected. Temperature and time limit adjustable in advanced setup (To cancel boost, press boost)

**Standby** – (selected zones) Change automatic set point to temperature in advanced setup (220°F/104°C default); cut manual % set point in half. May indicate material protection/standby remote input, see advanced set up. (To cancel standby, press standby)

Power "Off" (Lit when all zones are "Off")

Trim – Permanent, automatic set point change for zone(s) selected, ( $\pm 20^\circ\text{F}/11^\circ\text{C}$  default). Select zone(s), enter change amount, all selected zone(s) will change

Automatic/manual/locked operation, change/view

**Zone Select/Status Area**

Zone selected when lit

0 1 2 3

Alarm for zone when lit. Select zone, check alarm area

High temperature alarm ( $+20^\circ\text{F}/11^\circ\text{C}$  default) selectable in advanced setup

Temperature holding set point (automatic) or zone "On" (manual)

Low temperature alarm ( $-20^\circ\text{F}/11^\circ\text{C}$  default) selectable in advanced setup

Manual or % operation when lit

**Alarm Area**

High temperature ( $+20^\circ\text{F}/11^\circ\text{C}$  default)

Low temperature ( $-20^\circ\text{F}/11^\circ\text{C}$  default)

Thermocouple (T/C) Open – The T/C connection is broken

Thermocouple Reversed – The T/C connection is wired + to - at some point

Thermocouple Pinched – The T/C is pinched or the controller thinks it is pinched. (Default: 100% output, must see  $+20^\circ\text{F}/11^\circ\text{C}$  in 5 minutes). True Pinch – Temperature reading too far away to control – runaway. False Pinch – Heater is too small to heat the zone

Open Fuse – Fuse on module bad

Shorted Heater – The heater is shorted or exceeds the maximum rating of the module

Open Heater – The heater connection is broken

Uncontrolled Output – The module has an unregulated output. All zones on module shut "off" automatically

Clear Alarm, turn off light/relay