Touch Screen Operator Interface Panel

Your Gillard Servo-Torq is fitted with a Siemens TP170A Touch Screen operator interface panel.

This panel gives access to all the machine functions, via a series of pre-programmed screens.

Use the "Touch Fields" at the bottom of the screen to select the required screen.

Change the values displayed on the screens, by touching the field to be changed.
A data input screen appears, type in the new value and press 'ENTER' to confirm the new value.

Pressing 'ESC' before pressing 'ENTER' will cancel the entry, and return the display to its previous value.

If an attempt is made to enter a value outside the permissible limits of any variable, the screen will display an error message indicating the limit, and the variable will revert to its previous setting.

Some functions are password protected and can only be accessed once a valid password has been entered.

The screen pictured above is the "Main" or "Title" Screen.

Pressing this button, when it is displayed on any screen, will take the display back to this Main screen.

Other screens can be selected by pressing the relevant "buttons" on the main screen, these are,-


Cutting Screen.

This is the normal operating screen, it allows access to all the machine control variables required for normal machine operation.


Set-Up Screen.

This screen is password protected, and allows access to various calibration functions.


Tools Screen.

This screen allows the operator to access general functions that need only occasional changes.

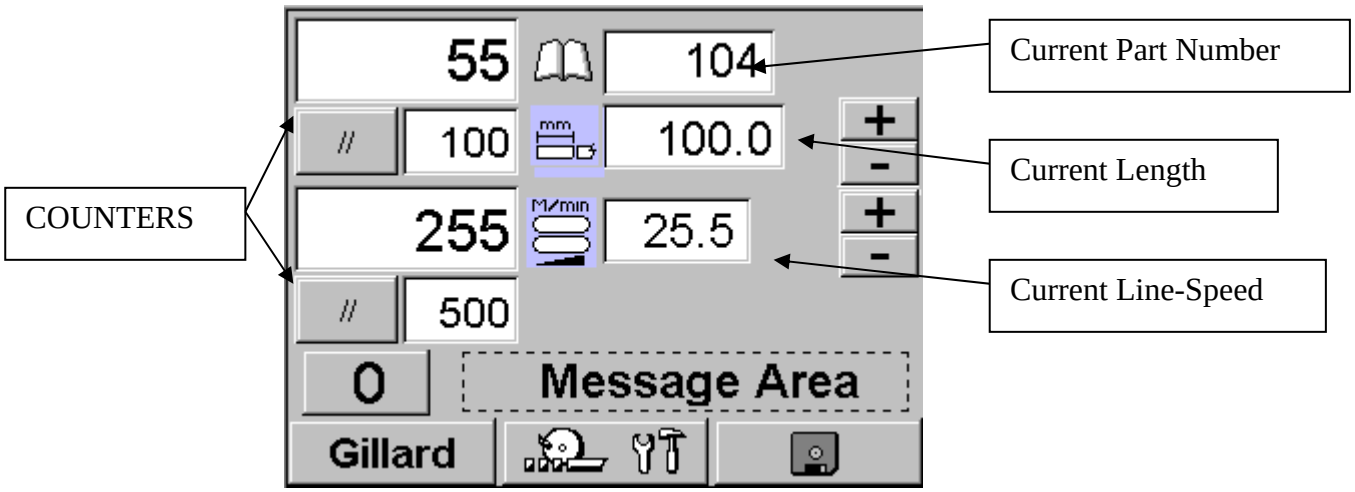

Parts Screen

Allows operators to store and delete part information, and control "cascade" functions.

NB Screens may vary according to which options are fitted to your machine, but all symbols always have the same function.

Cutting Screen

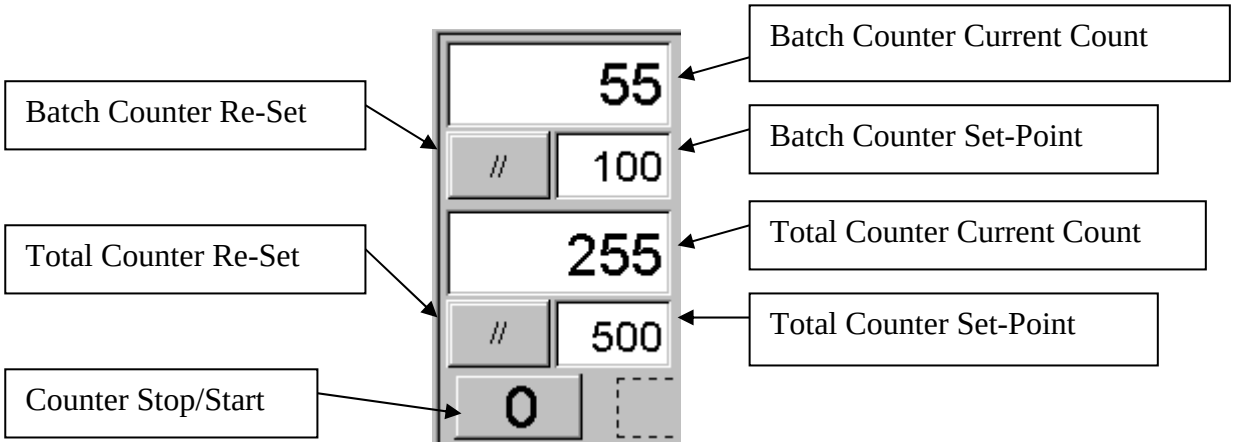
This is the main control screen, from here all normal functions can be accessed.



The variables displayed on this screen control the basic operation of the machine.
In “Timer” mode, a similar screen is displayed except that the “Length” field is replaced by a “Cut Time” field.

COUNTERS.

The display has both a Batch, and a Total Cuts Counter.



Counter Stop/Start, toggles the counters ON or OFF.

Pressing the Re-Set button sets the relevant counters current count value to zero.
An output is available from the main PLC on both Batch, and Total counters reaching preset.
PART NUMBER

The machine is able to store up to 150 part recipes.
Valid part numbers are from 1 to 999999.
Entering a new part number here, causes the machine to load that part recipe.

LENGTH

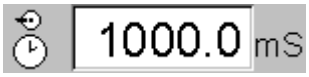
Length Increment/Decrement

This is the length the product will be cut into when the cut cycle is started.
Acceptable values are between 1.0 and 100000.0mm in 0.1mm increments.
The increment and decrement buttons increase or decrease the length in 0.1mm steps.

LINE SPEED

This is the speed in metres/minute that the caterpillar will run at when it is running.
Acceptable values are from 0.0 to maximum speed in increments of 0.1m/min.
The increment and decrement buttons increase or decrease the speed in 0.1M/min steps.

CUT TIMER

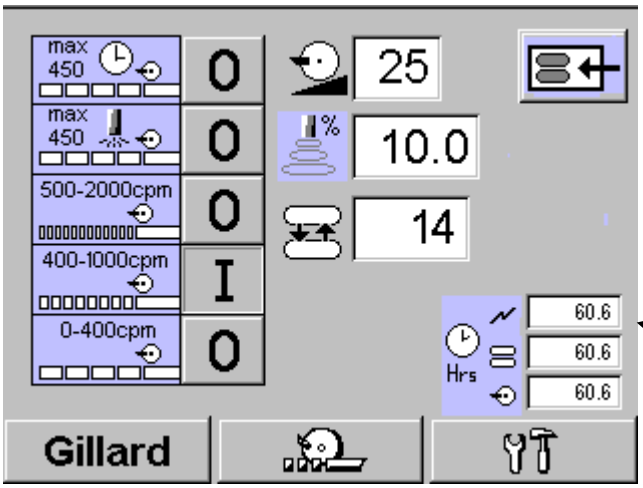


In this field the time between cuts is set for when the machine is cutting in timer mode.
In the above example the machine will do one cut every second.

SYSTEM MESSAGE AREA
Warning Messages etc are displayed in this portion of the screen.

Tools Screen

This screen allows operators to “fine tune” and set-up the cutting cycle parameters.



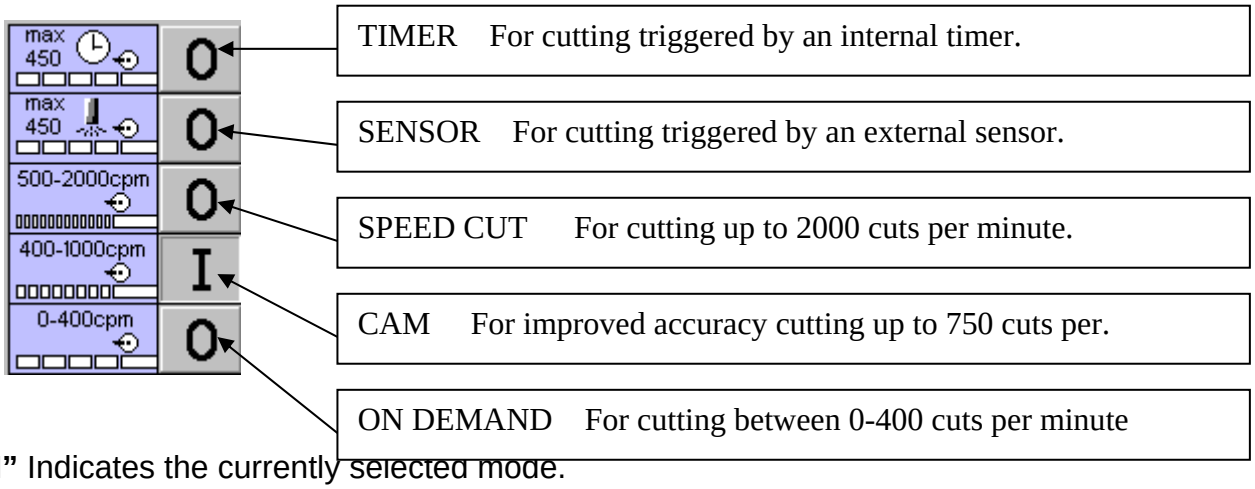
Hour Counters

BLADE SPEED SETTING

From here you can set the speed of the knife during a cut.
The speed can be adjusted from between 10 and 100%.
This speed has no effect when the machine is in Speed-Cut mode.

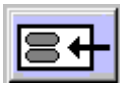
NB the lower the speed the lower the cutting force.
Do not set the blade speed too low, or it may not be able to cut the product.

CUT MODE SELECTOR.

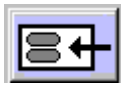


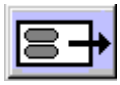
"I" Indicates the currently selected mode.
Selecting a new mode automatically de-selects the previous mode.

CATERPILLAR SPEED CONTROL MODE SELECTOR



Indicates which method of controlling the caterpillar speed is currently operative.
The options are,-

 LOCAL The speed is set via the operator panel.

 REMOTE The caterpillar speed will follow the remote input signal.

SONAR TRIM LEVEL

Indicates and adjusts the level of speed control taken from a Sonar Trim device.

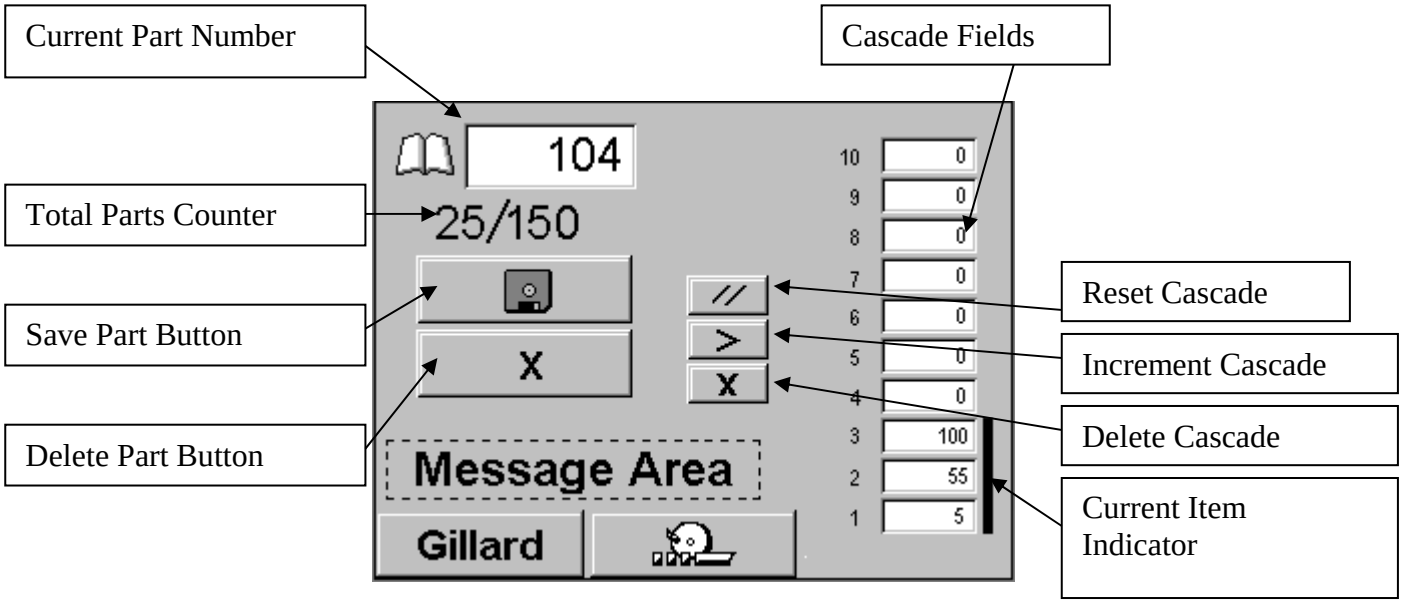
Only effective in local speed control mode.
0.0% = No Sonar effective, 100% = Full Sonar control.

BOOM POSITION CONTROL

Displays and adjusts the current boom gap.
(Only with motorized boom control).

Part Screen

This screen is for saving and deleting part recipes, and for setting up cascade cutting.



SAVE PART BUTTON

Pressing the “SAVE” button causes the current part information to be saved.
The information which is saved as a ”Part Profile” is all the current values of the following,-

LENGTH
LINE SPEED
TOTAL QUANTITY
BATCH QUANTITY
BLADE SPEED
CUT MODE
BOOM GAP

This profile can be recalled, and loaded at any time by entering the saved part number in the “CURRENT PART” field.

Note the new values take immediate effect, the machine will begin cutting the new length immediately it is loaded if the cutting cycle is running.

DELETE PART BUTTON

The DELETE button, deletes the currently displayed part.

TOTAL PARTS COUNTER

Indicates the number of parts currently stored in memory.

CASCADE FIELDS

“Cascade Cutting” is a feature to permit the automatic cutting of several different parts.
The machine loads the first profile in the list, and cuts this profile until it has cut the number indicated in the “Total Quantity” field, it then automatically loads and begins cutting the next item in the list.
The machine continues doing this until it has cut all the items in the current list, it then returns to item 1 and starts the list again.
Up to 10 items can be loaded in a cascade.

The screen pictured shows a 3 item cascade.
When the cutting cycle is started the machine will cut part number 5, indicated in cascade field 1.
It will then load part number 55 as indicated in cascade field 2, followed by part number 100 as displayed in cascade field 3.
Once the program reaches the 0 in cascade field 4, it will reset the program back to cascade field 1, and reload part number 5.

The machine will automatically try to run a cascade if the number in cascade field 1 is greater than 0.

It is assumed that when running a cascade, the machine is “In Line”, therefore, parameters that would adversely affect the line are not loaded in cascade mode.

LENGTH	Loaded
CUT TIME	Loaded
LINE SPEED	Not Loaded
TOTAL QUANTITY	Loaded
BATCH QUANTITY	Loaded
BLADE SPEED	Not Loaded
CUT MODE	Not Loaded
BOOM GAP	Not Loaded

When not in cascade mode, ALL parameters are loaded.

Reset Cascade

Resets a running cascade to the first part in the list.

Increment Cascade

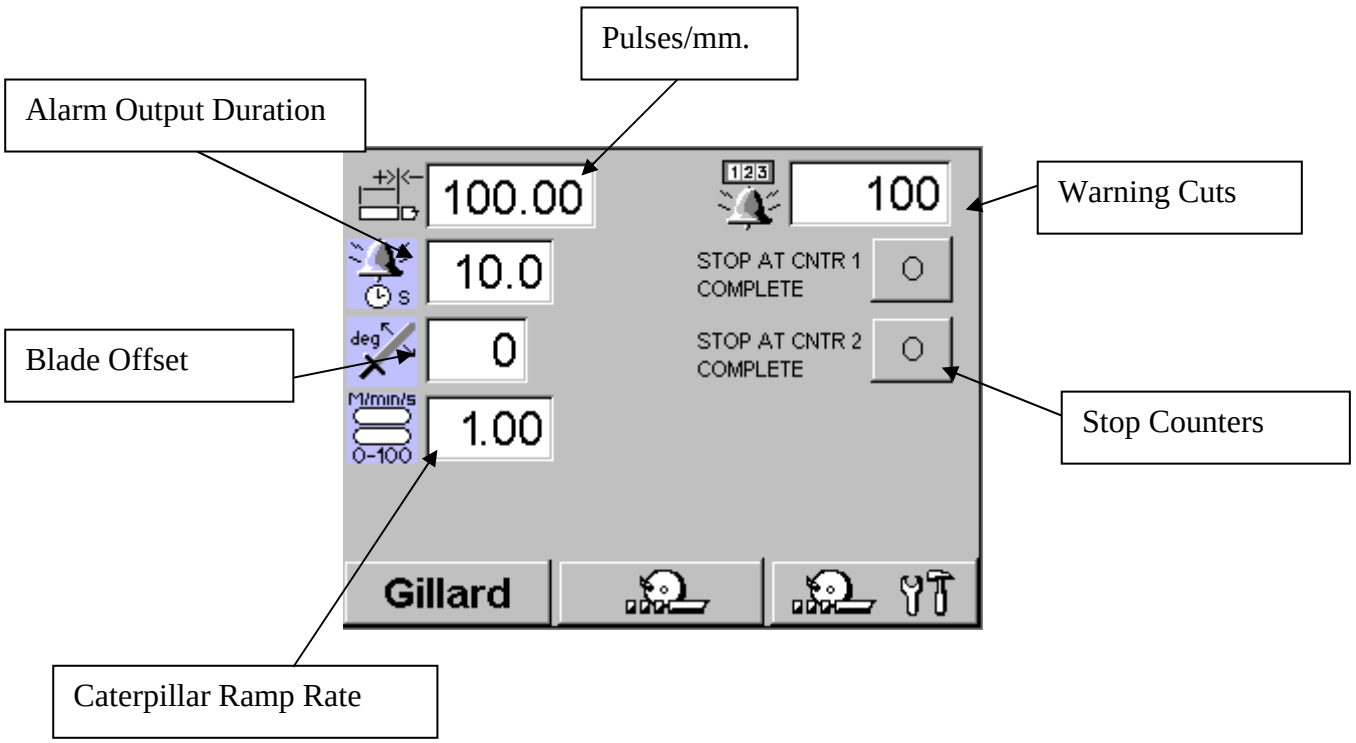
Increments a running cascade to the next part in the list

Delete Cascade

Clears the current cascade list.

Set-Up Screens

A series of Set-Up options can be accessed via this screen.
This screen is protected by a password.



PULSES / MM

Permits calibration of the machines cut length.
This value is the number of encoder pulses the machine will count for each mm of product.
Increasing or decreasing this value will increase or decrease the actual lengths the machine cuts for a given entered length.
i.e. if a length of 100.0mm is entered on the Cutting Screen, but the actual length the machine is producing is 90mm. Increasing the value in this field by 10% will increase the 'actual' cut length, so that it is equal to the 'entered' cut length.

ALARM OUTPUT DURATION

The machine is equipped with various outputs which can be used to draw attention to certain conditions.
For example a Batch Complete output.
This field permits the operator to set the duration of these outputs.

WARNING CUTS

As well as Batch Complete the machine can give warning of Batch Nearly Complete.
This field sets the number of cuts before the batch quantity at which this warning will be turned on.
i.e. If a batch quantity of 100 was entered, and a Warning level of 10 was also entered.
The warning output would turn on once the machine had completed 90 cuts. It will remain on until the Batch Complete output turns on.

CATERPILLAR RAMP RATE

On machines fitted with an integral caterpillar, the acceleration and deceleration rates of the caterpillar belts can be set via this field, thereby assisting with integrating the machine into an existing line.
The value is set as metres per minute per second.
i.e. if a line speed of 10.0M/min was set, and a ramp rate of 1.0M/min/S was also set.
The caterpillar belts, when started would take 10 seconds to reach the set line speed, and 10 seconds to come to a stop once the stop button was pressed.
NB. This field is only effective in 'Local' speed control mode.
In 'Remote' mode the caterpillar speed is directly linked to the 'Raw' speed input signal.
The value is also ignored in an 'Emergency Stop' condition.
In the case of an emergency stop the belts are brought to rest as fast as possible.

BLADE OFFSET

This field allows the user to select a different blade start position according to what type of blade is fitted to the machine.
The options are from 0 to 360 degrees.
Having the wrong start position set could cause problems, as the blade may not be moving at full cutting speed when it is attempting to cut the profile.
The default position for a standard straight blade is 45 degrees.

STOP COUNTERS

When set to "I" the machine will stop on reaching the required value of the relevant counter.

(Revised 5/06/2002)