

Servicing the Series 6100 & 8000 with the FPC-902 Hand Terminal



After the operator has been mechanically installed, the arms attached to the door, and 120VAC connected to the power supply, connect the FPC902 Hand Terminal to the operator control. The following sequence of screens will occur. The final screen shown below is the base point from which various settings for the operator are accessed and modified.

```
AKKU      PASS
FLASH     PASS
EEPROM    PASS
RTC       PASS
CAN       PASS
```

```
FPC902
Version 1.26
Nov 24 2006
10:48:48
```

```
FPC902
Service STG >
Service STG Slave >
Flash-Programmer >
Setup >
```

Press "OK"

```
Connect with STG ...
■■■■■■■■□□□□□□
```

```
Accept all parameter
from the STG?
```

```
Offline Yes
```

Press "OK"

```
Parameter download
from STG ...
```

```
■■■■■■■■□□□□□□
```

```
DFA127 V1.32
```

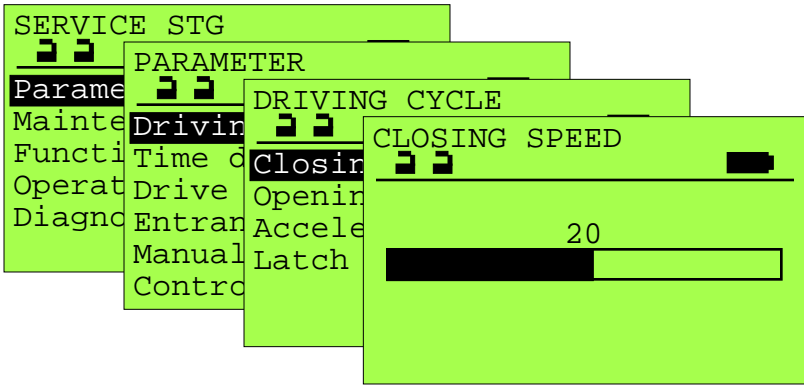
```
USA Low Energy
Manual
0 Errorless
```

```
Continue
```

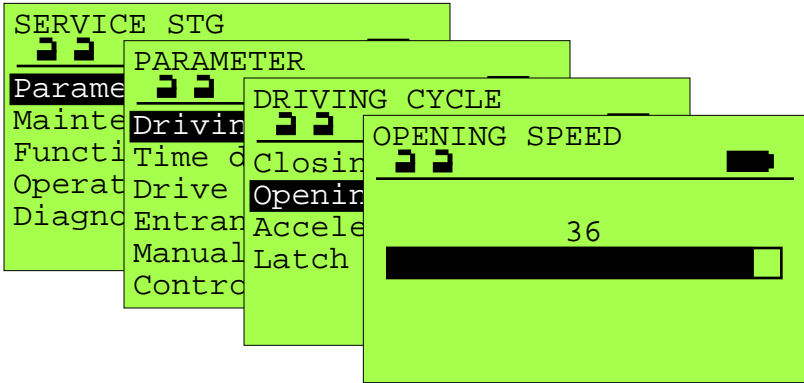
Press "OK"

```
SERVICE STG
Parameter >
Maintenance >
Functions >
Operation mode >
Diagnostics >
```

The screen sequences on the following pages start from this point and document the various adjustable parameters in the control. When at any of the screens shown below, the above screen can be accessed by pressing the "ESC" key one or more times.

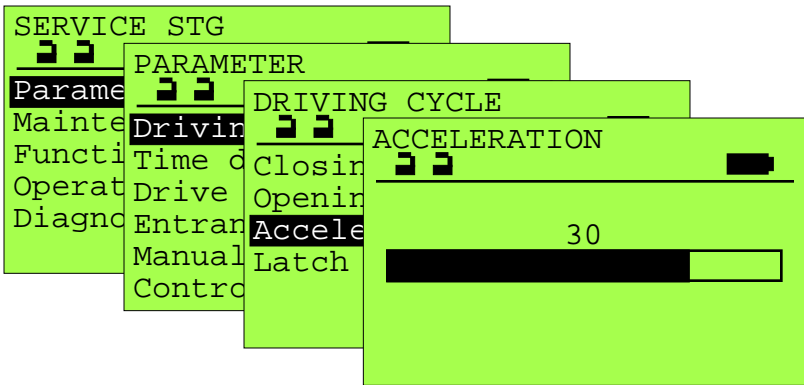


Note: If Manual Control has been enabled (see page 5), this adjustment will be superceded by the Closing Speed adjustment in Manual Control (see page 6).

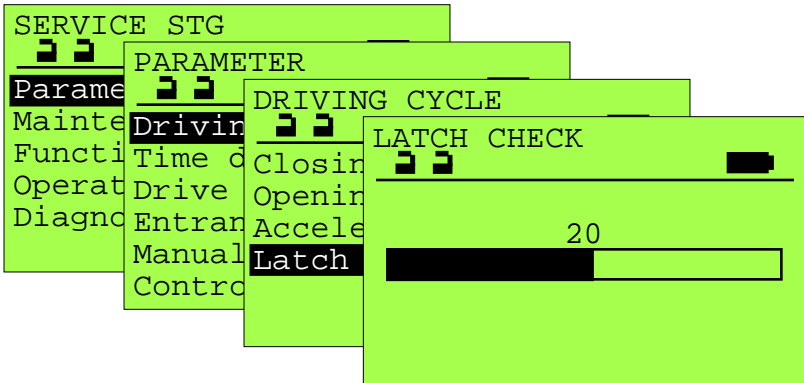


If this operator is to be set up for low energy operation, opening and closing speeds must be adjusted to conform to the requirements of ANSI A156.19.

Increasing the setting increases the speed.

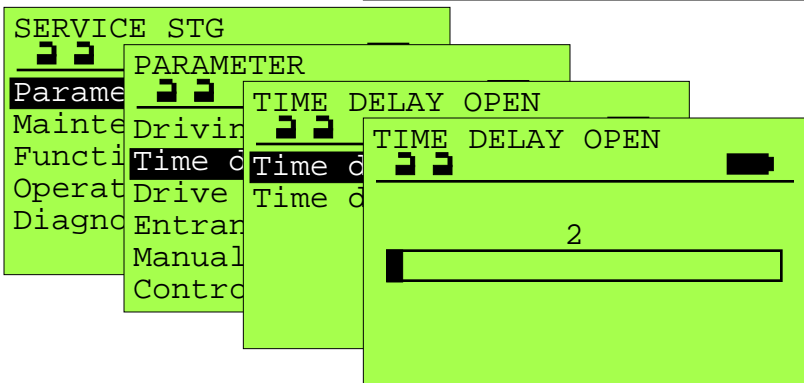


Increasing the setting increases the rate of acceleration.

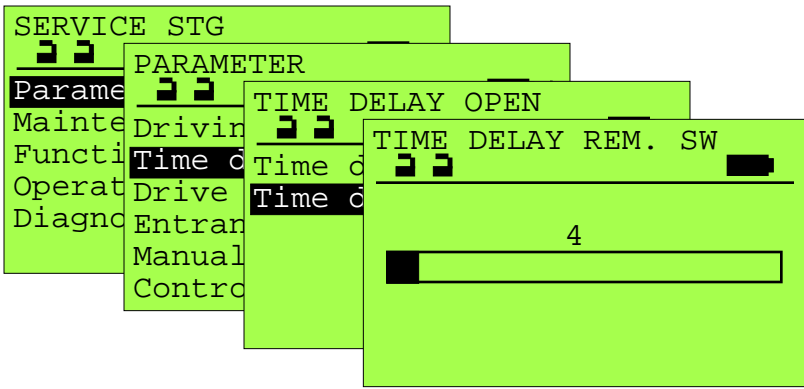


Increasing the setting increases the latch check time (slower latch check speed). The latch check position is not changed.

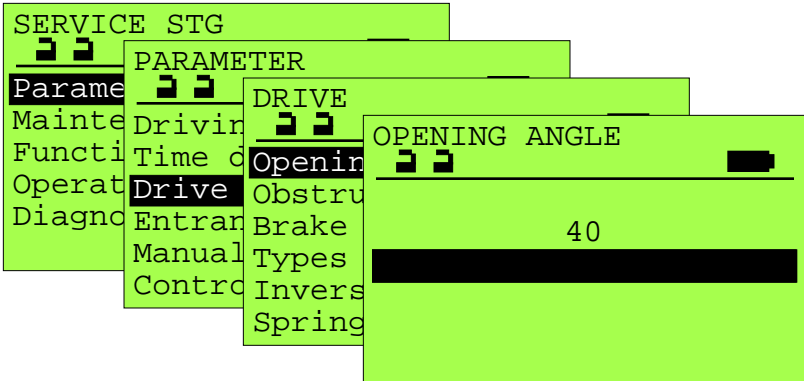
NOTE: If any of the Driving Cycle parameters are changed, a calibration cycle should be initiated.



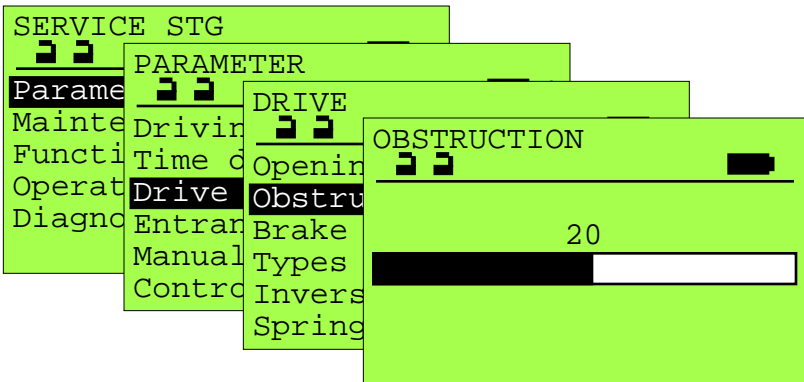
0 thru 20 are in 1 sec. intervals; 21 thru 40 are in 2 sec. intervals providing 60 sec. maximum delay. If this operator is to be set up for low energy operation, the time delay must be set to 5 seconds, minimum, to conform to ANSi A156.19.



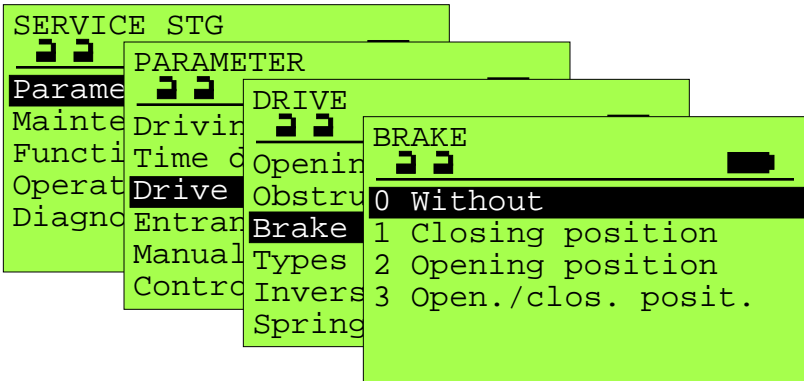
0 thru 20 are in 1 sec. intervals;
21 thru 40 are in 2 sec. intervals
providing 60 sec. maximum delay.



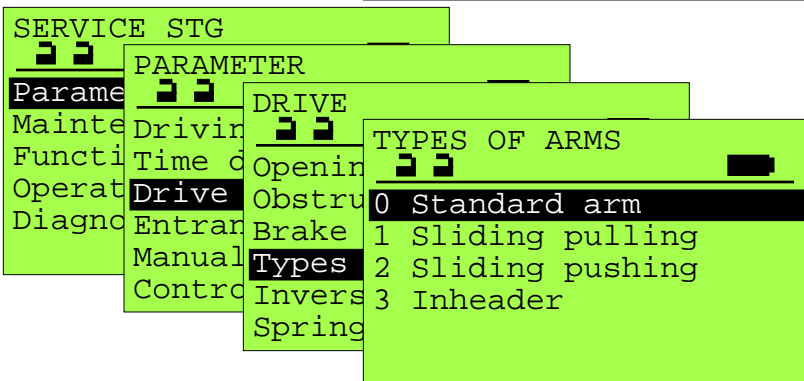
In abusive environments, it is suggested the mechanical open stop be adjusted to greater than 90° and the Open Angle adjusted to less than 40, setting a soft stop at 90°.



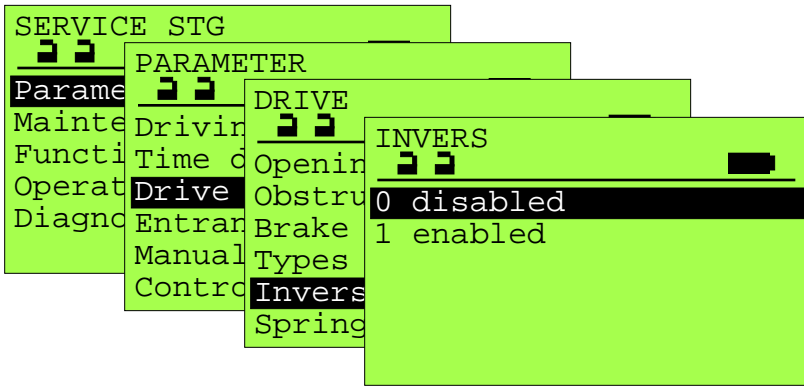
This sets the sensitivity of the unit to obstructions during powered operation. It is normally set automatically during the learn cycle, but can be modified as desired. (20) Increasing the setting increases the force required to stop the door.



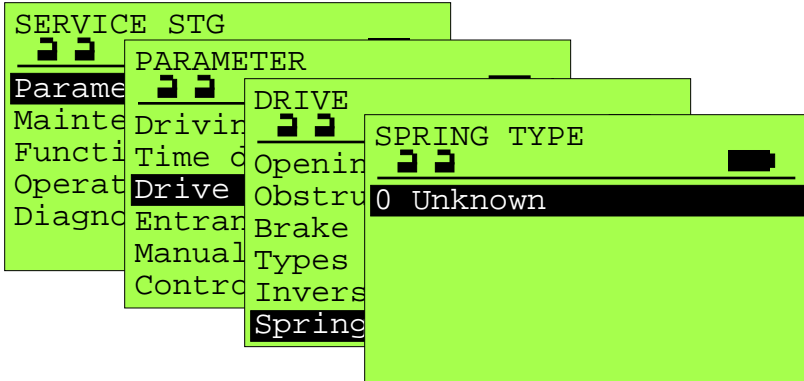
Not applicable unless the operator has been configured with the optional electric brake.



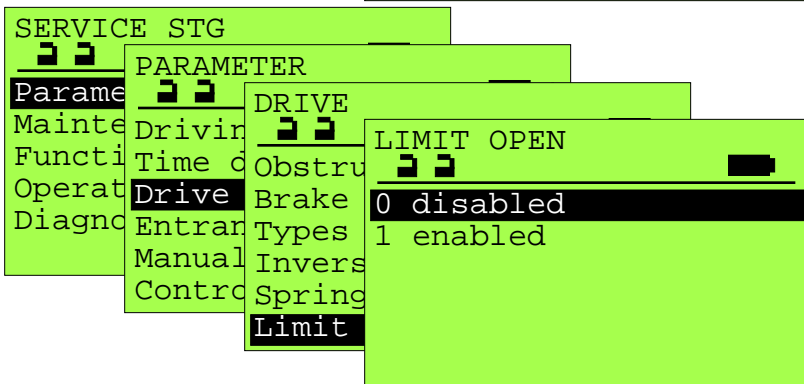
Setting the Arm Type will adjust the open and close check point to meet current standards.



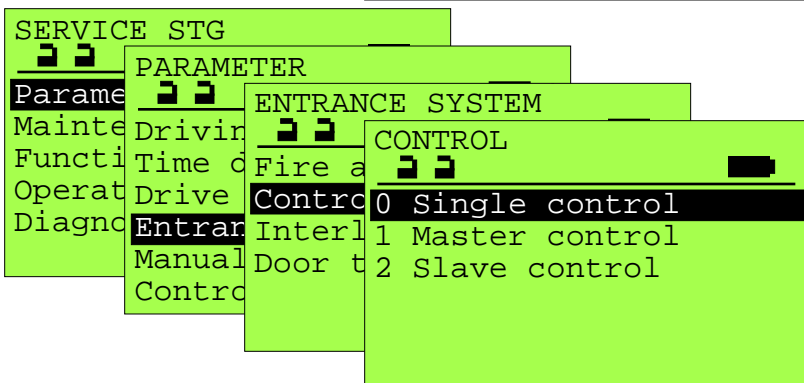
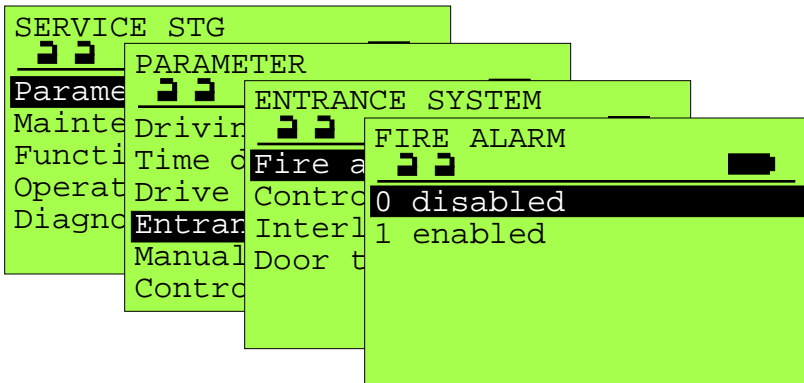
INVERS operation is when the operator is to be installed as a Power Close, Spring Open configuration - typically used in certain smoke evac installations.



Not used in USA configurations.



Not used in USA configurations.



Typically this parameter is automatically set during initialization. With paired operators (synchronous operation), it is necessary to change jumper J14 on the slave control from M1 to S1. When changing this jumper, it is necessary to reset the controls.

```

SERVICE STG
  2 2
PARAMETER
Parametr 2 2 ENTRANCE SYSTEM
Mainten Drivin 2 2 INTERLOCK TYPE
Functi Time of Fire a 2 2
Operat Drive Control 0 Without interlock
Diagnos Entranc Interl 1 Master-Slave
Manual Door t 2 Master-Master
Control

```

```

SERVICE STG
  2 2
PARAMETER
Parametr 2 2 ENTRANCE SYSTEM
Mainten Drivin 2 2 DOOR TYPE
Functi Time of Fire a 2 2
Operat Drive Control 0 Basic operator
Diagnos Entranc Interl 1 USA
Manual Door t 25 USA Low Energy
Control 26 EU Low Energy
29 UK
30 UK Low Energy

```

Typically set to either -
 USA - for full power automatic operation
 or
 USA Low Energy - for units that will be
 expected to be opened manually.

```

SERVICE STG
  2 2
PARAMETER
Parametr 2 2 MANUAL CONTROL
Mainten Drivin 2 2 DURING CLOSING
Functi Time of During 2 2
Operat Drive When l 0 disabled
Diagnos Entranc When a 1 enabled
Manual Obstru
Control Supp.
Active

```

If the Mechanical Panel has been set
 to either "7 3 Pos. (OFF-M)" or "9 3
 Pos. (LOCK-M)", this parameter will
 allow manually pushing the door
 open.

```

SERVICE STG
  2 2
PARAMETER
Parametr 2 2 MANUAL CONTROL
Mainten Drivin 2 2 WHEN LOCKED
Functi Time of During 2 2
Operat Drive When l 0 disabled
Diagnos Entranc When a 1 enabled
Manual Obstru
Control Supp.
Active

```

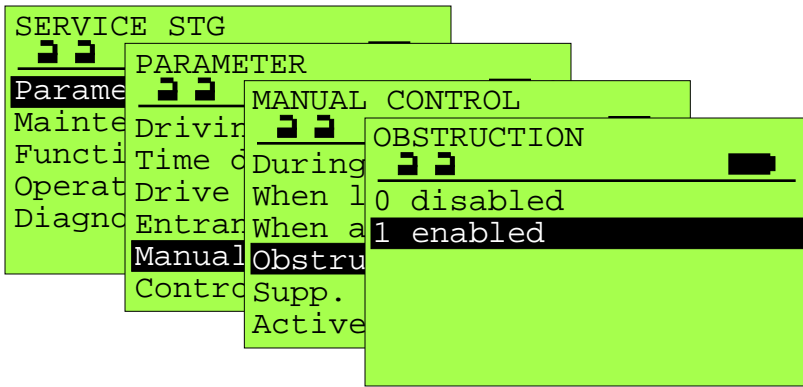
For typical latch check operation,
 set "DURING CLOSING", "WHEN
 LOCKED", and "SUPP. DUR. CLOS."
 to "1".

```

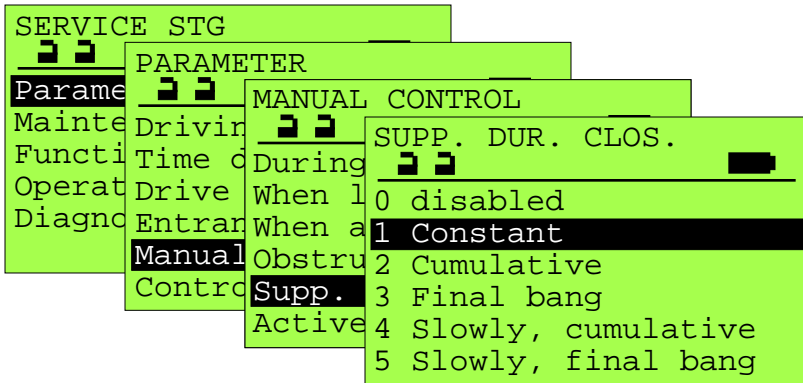
SERVICE STG
  2 2
PARAMETER
Parametr 2 2 MANUAL CONTROL
Mainten Drivin 2 2 WHEN AUTO
Functi Time of During 2 2
Operat Drive When l 0 disabled
Diagnos Entranc When a 1 enabled
Manual Obstru
Control Supp.
Active

```

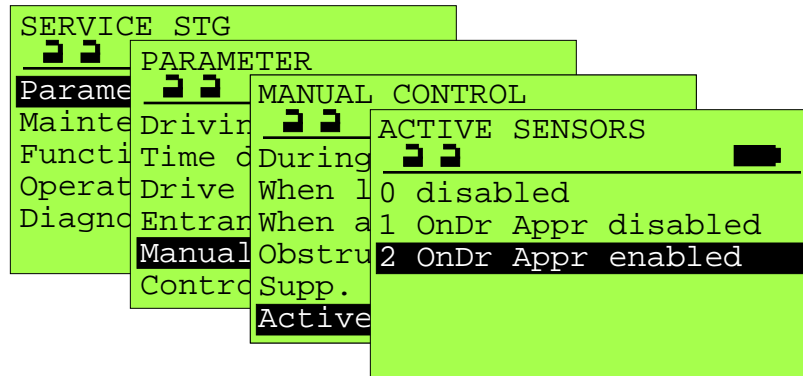
Enables manual opening of the door
 from fully closed when the operating
 mode is "AUTO" (normally the mode
 is "Low Energy", as defined by the
 setting of the Control Panel
 parameter).



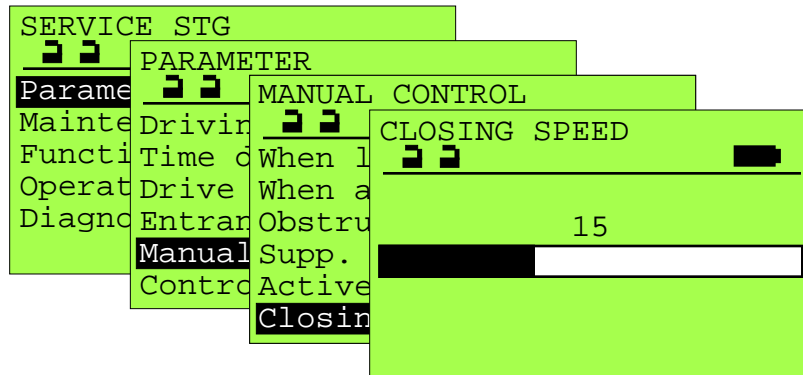
Enabling the Obstruction parameter will cause the unit to re-open if stopped during the closing cycle. The standard open time delay will be initiated before closing.



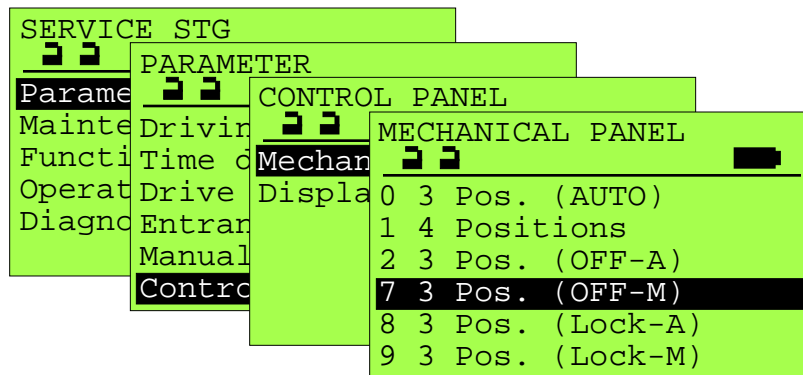
With Manual Control / During Closing enabled (above) -
 0 disabled - provides no latch check
 1 Constant - provides latch check & assist
 2 Cumulative - no latch chk & ramped assist
 3 Final bang - no latch chk & power hold
 4 Slowly, cumulative - latch chk & ramped
 5 Slowly, final bang - latch chk, no assist, and power hold



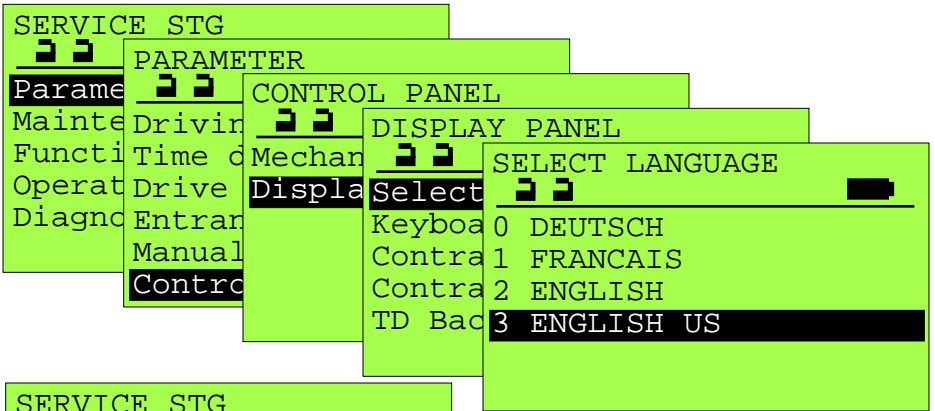
Determines the functionality of sensors and actuating devices during the close cycle when the parameter MANUAL CONTROL / DURING CLOSING is enabled.



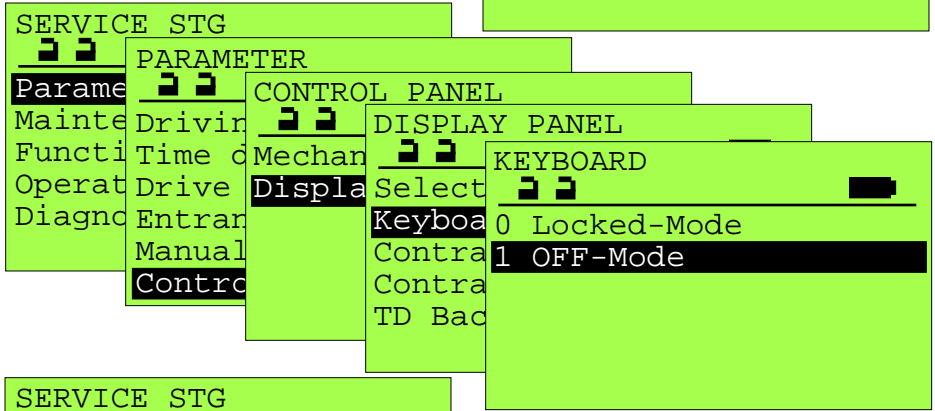
This adjustment is functional only when the Manual Control / During Closing parameter has been enabled. Otherwise, refer to the Closing Speed adjustment on page 2.



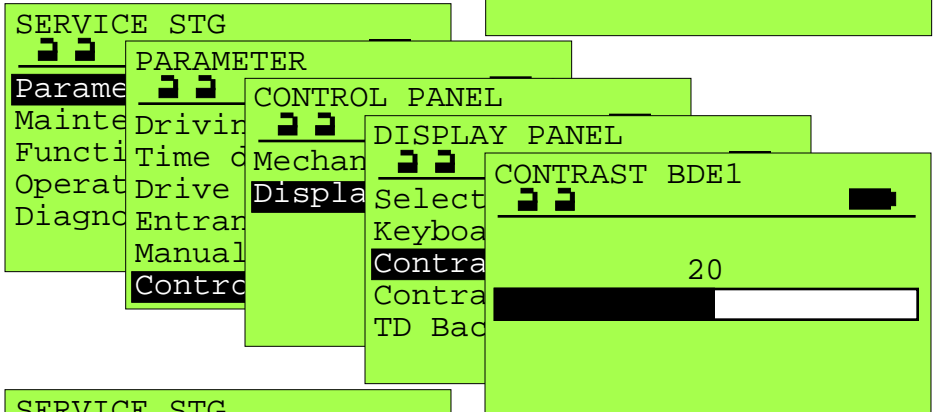
3 Pos.(AUTO) is used on units when no rocker switch is connected.
 3 Pos.(OFF-M) is the normal setting.
 3 Pos.(Lock-M) is used when a lock is present and the door is to be locked when turned OFF.
 3 Pos. (OFF-A) and (Lock-A) are used when power hold closed is desired.



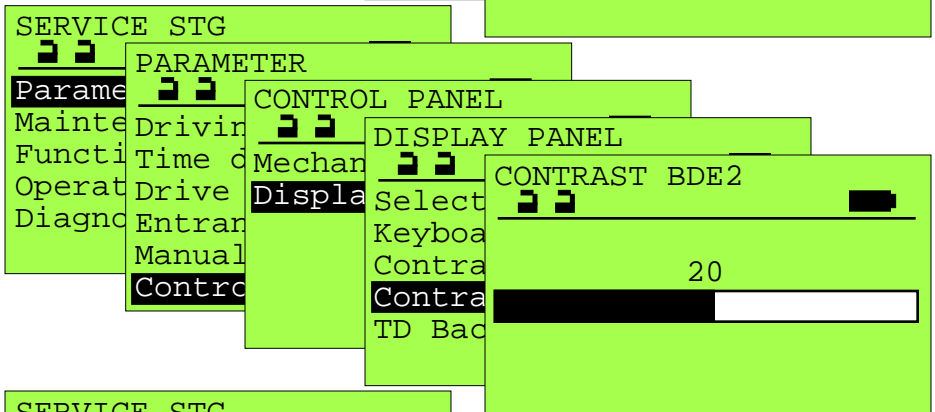
Selects the language displayed on the Display Control Panel.



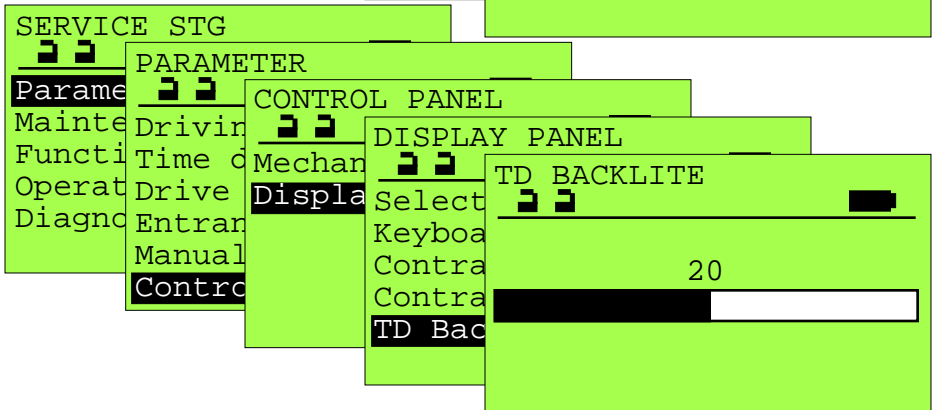
If the electric locking is to be active when the unit is turned "OFF", this should be set to "0 Locked-Mode"



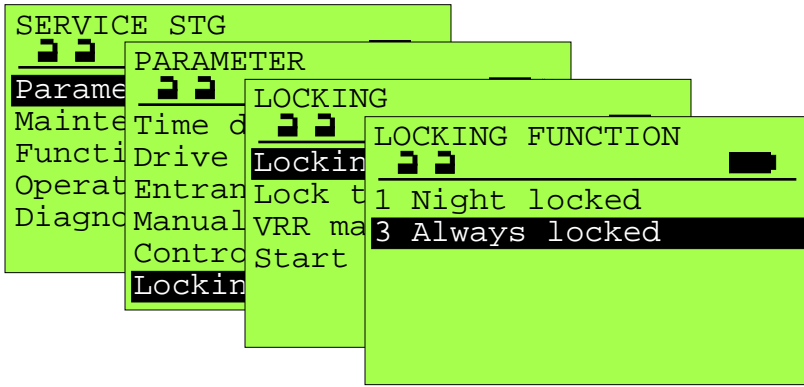
If a Display Control Panel has been connected, this will set the contrast of the LCD display.



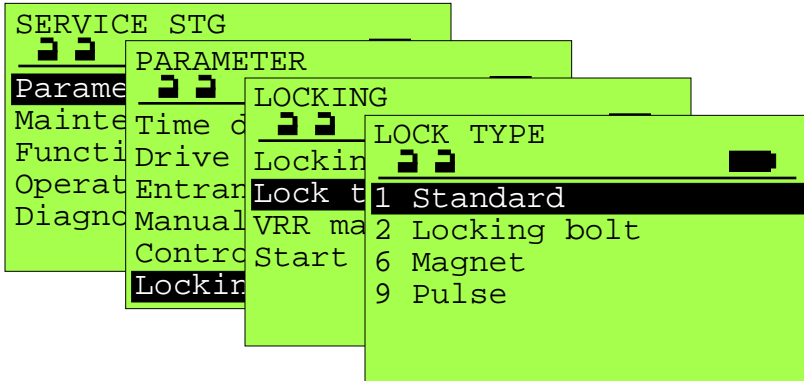
If a second Display Control Panel has been connected, this will set the contrast of the second LCD display. Note: The dip switch on the back of the second display must be set to "BDE2"



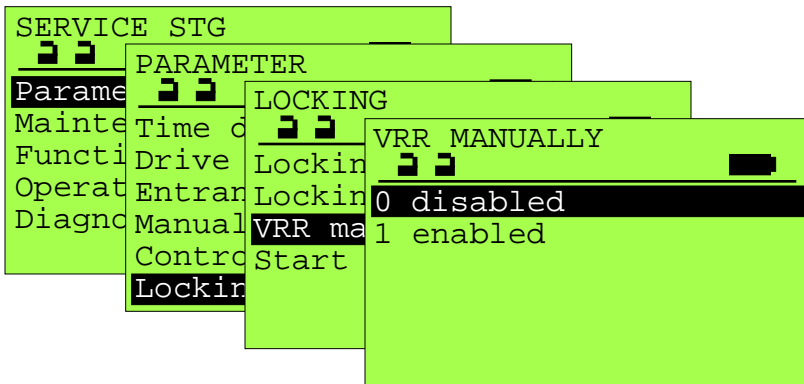
Measured in seconds; Additionally, 0 = Backlite never on 40 = Backlit continuously



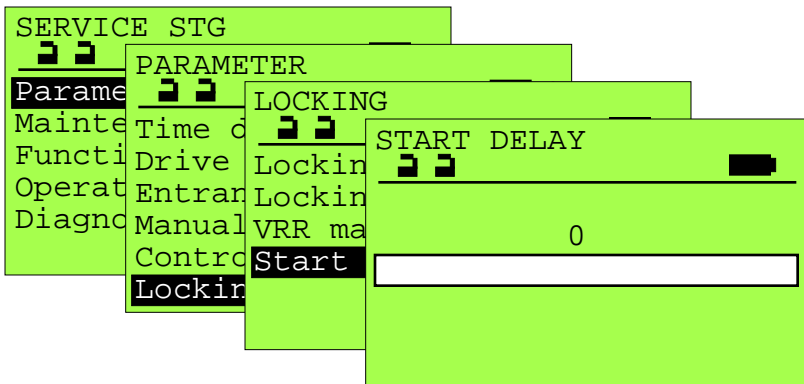
If no electric lock is present, set to "1 Night locked" for quicker opening.



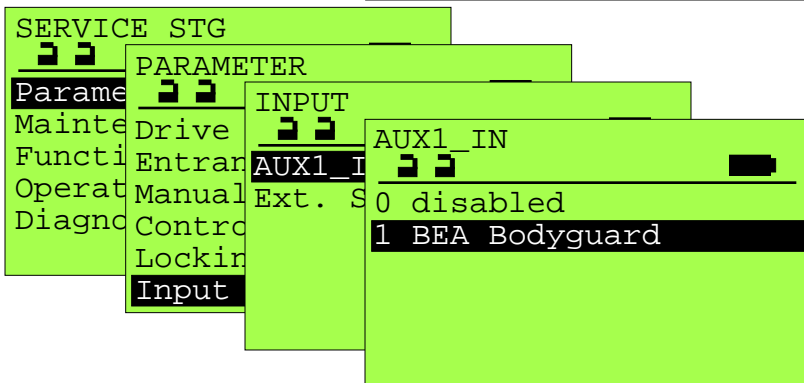
With each of the Lock Types, the lock relay (terminals 20,21,22) will switch after operator actuation but before the operator starts opening. Additionally, all except Magnet will cause the unit to drive closed before opening. Standard - relay drops @ full open
 Locking bolt and Magnet - relay drops @ full closed
 Pulse - relay drops @ 10° open.



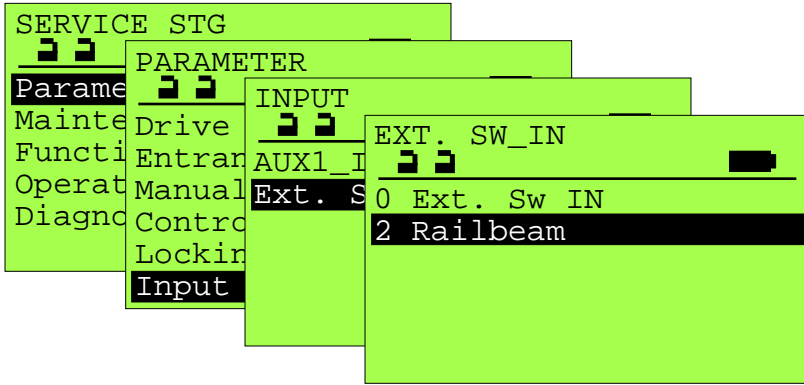
When enabled, a short between terminals 23 and 24 will prevent automatic operation. "Manual Lock" will be shown on the display control panel and the FPC-902 Terminal.



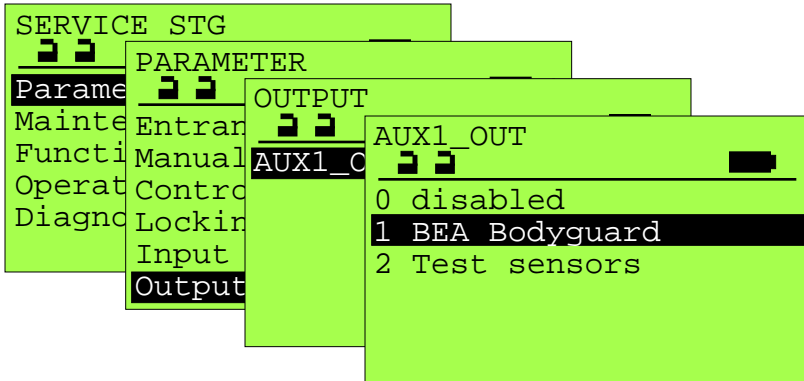
When electric locking is enabled, actuation of the control will cause the lock relay to immediately switch, followed by the Start Delay, then the operator begins to open the door.
 0 = 1/2 second delay
 1 - 40 increases delay in 0.2 second increments (20 = 4.5 second delay)



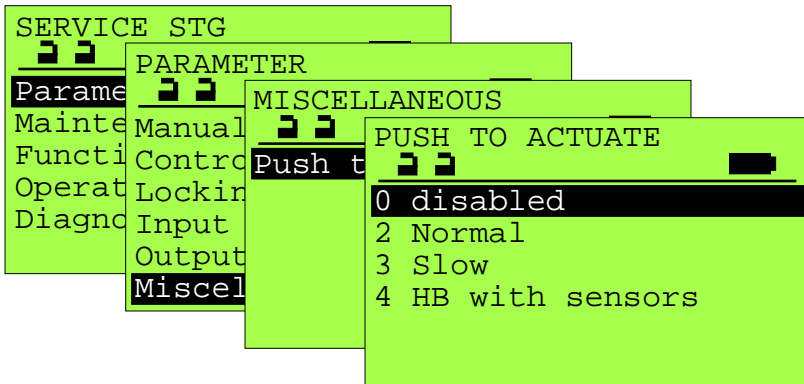
If a transom mounted swing-side safety sensor is used, AUX1_IN (terminal 8) should not be disabled. This input is ignored during the door closing cycle.



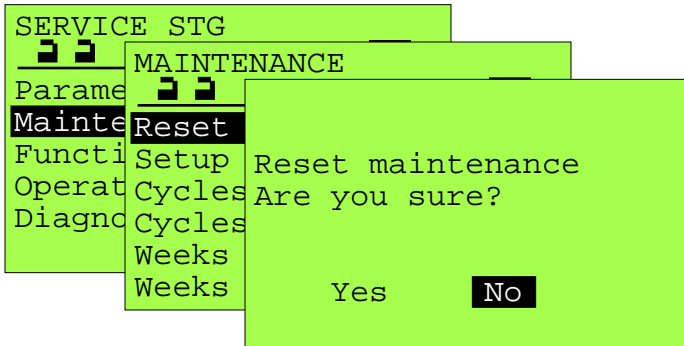
If a safety beam has been installed in the outer end of a guide rail, its N.C. output should be connected between terminals 4 and 5, and this parameter should be set to "2 Railbeam".



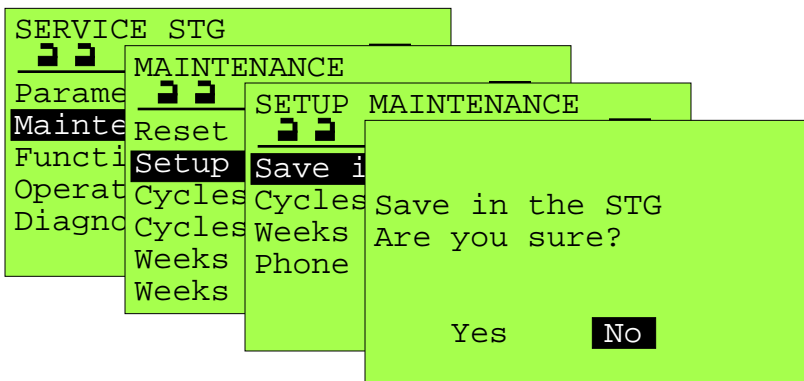
This parameter sets the output from terminal 9, and if "1 BEA Bodyguard" is selected, this output should be connected to the DATA + input to the BEA BodyGuard. See the Series 8000 wiring diagram.



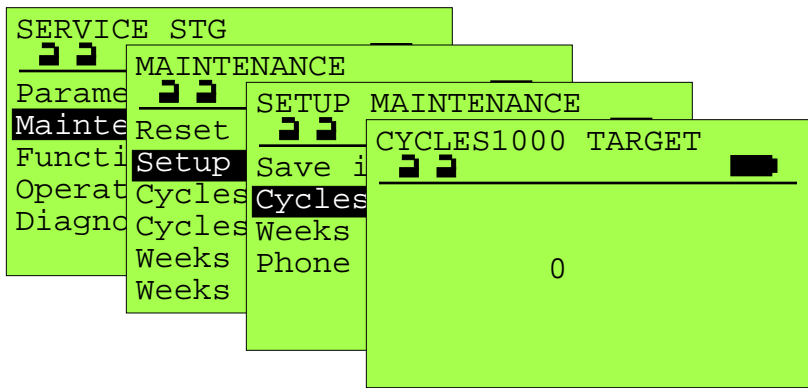
"2 Normal" will cause the operator to open at the adjusted "Open Speed" parameter. "3 Slow" will cause the operator to open in approximately 7.5 seconds. NOTE: When Push to Actuate is enabled, the operator will resist manually opening the door at a speed greater than the Open Speed the unit is adjusted to.



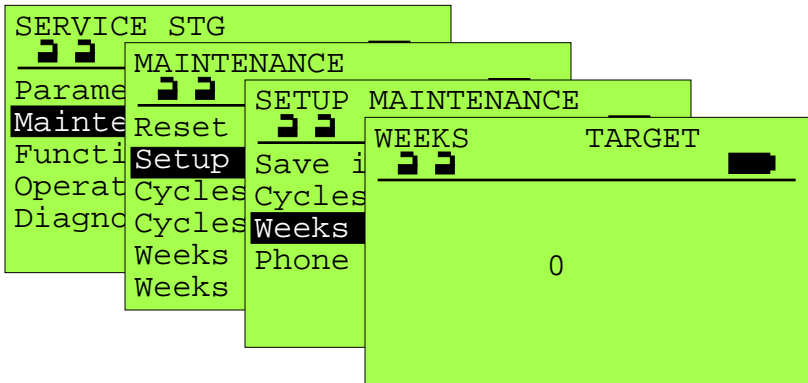
Usefull in setting up a maintenance schedule.



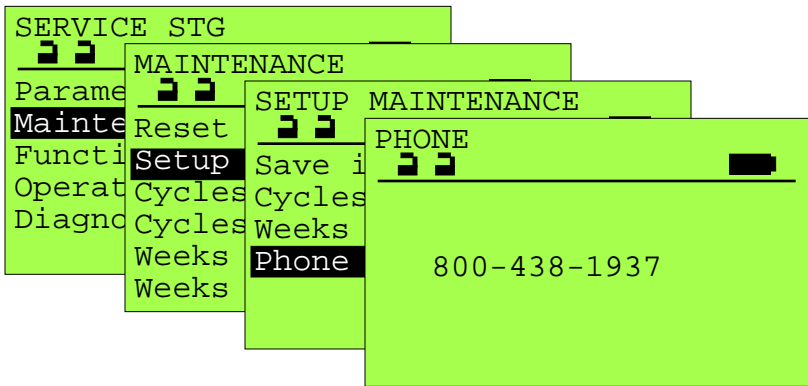
Usefull in setting up a maintenance schedule.



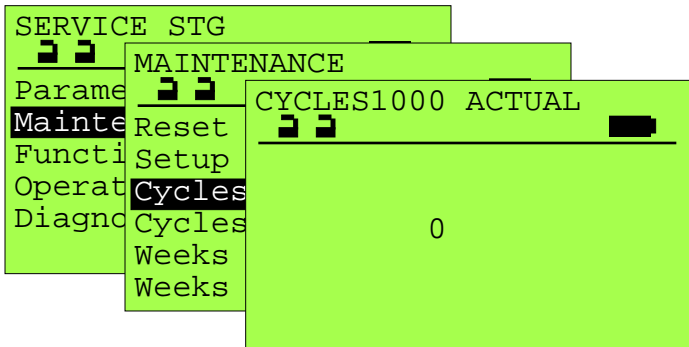
Usefull in setting up a maintenance schedule.



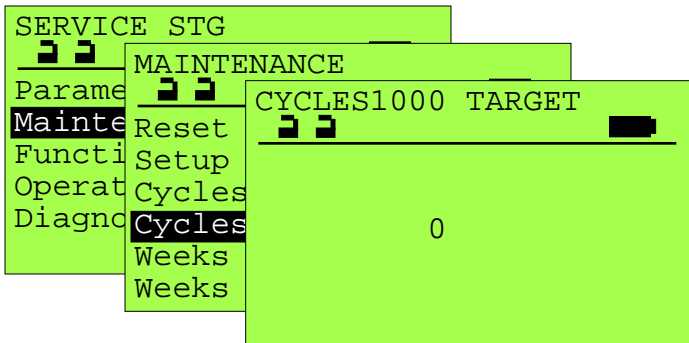
Usefull in setting up a maintenance schedule.



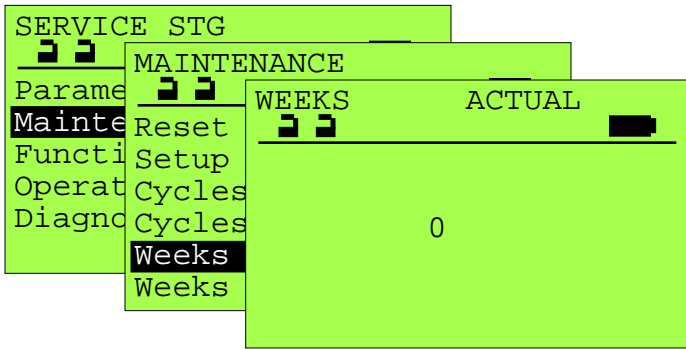
If a Display Control Panel is connected to the operator, this telephone number will momentarily display when the unit it turned on, and if an error display occurs, will alternately display with the Error Screen. If no number is entered, the unit defaults to the factory's 800 number. To store the number in the control, use "Save in the STG" at the bottom of the previous page.



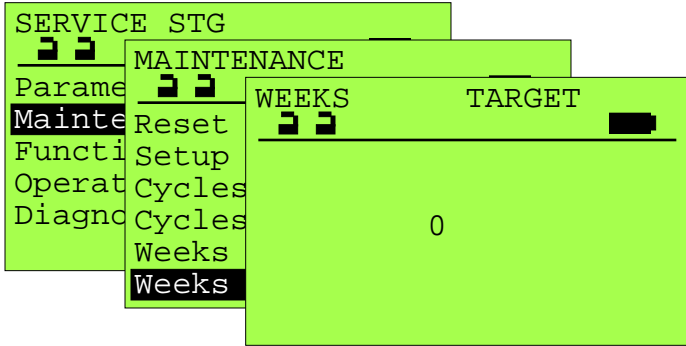
Usefull in setting up a maintenance schedule.



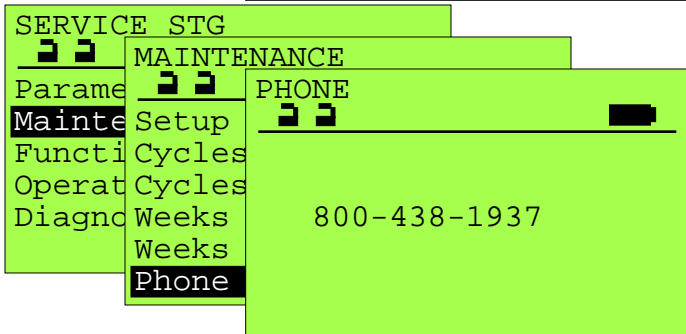
Usefull in setting up a maintenance schedule.



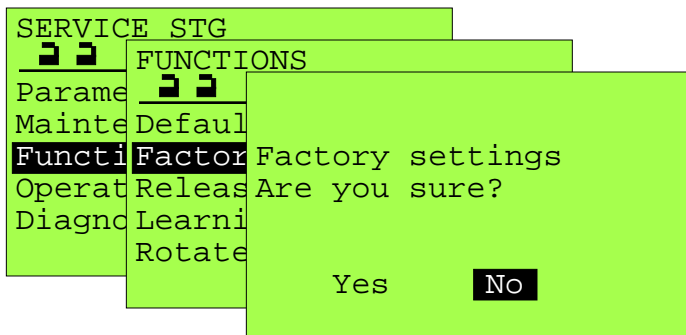
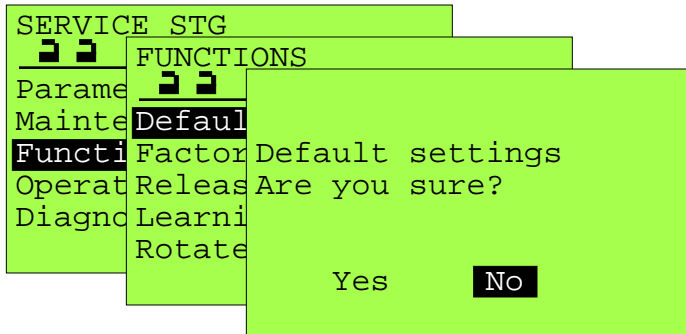
Usefull in setting up a maintenance schedule.

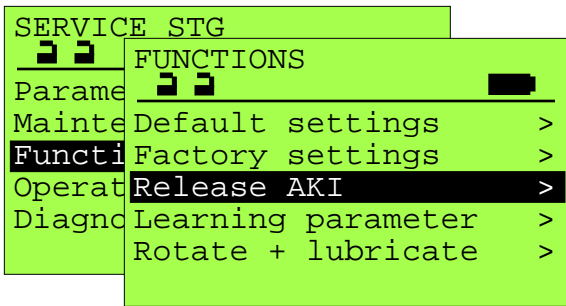


Usefull in setting up a maintenance schedule.

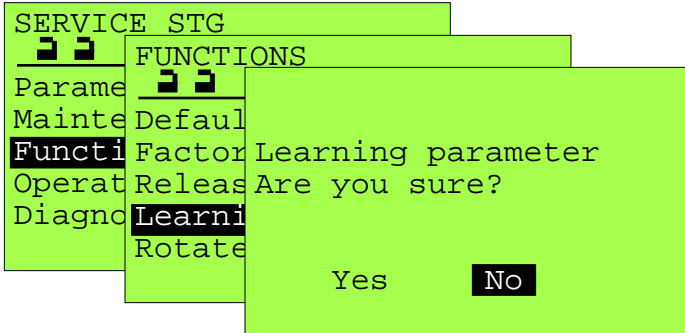


An alternate location for setting a custom telephone number. If a Display Control Panel is connected to the operator, this telephone number will momentarily display when the unit it turned on, and if an error display occurs, will alternately display with the Error Screen. If no number is entered, the unit defaults to the factory's 800 number. (It is not necessary to use "Save in the STG" from this screen.)

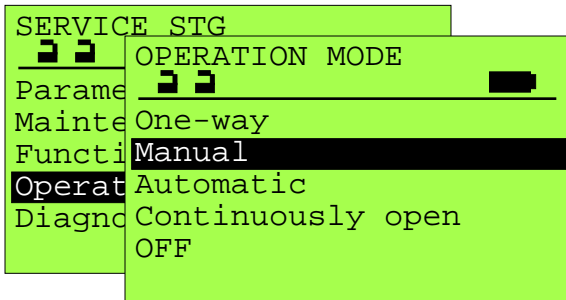
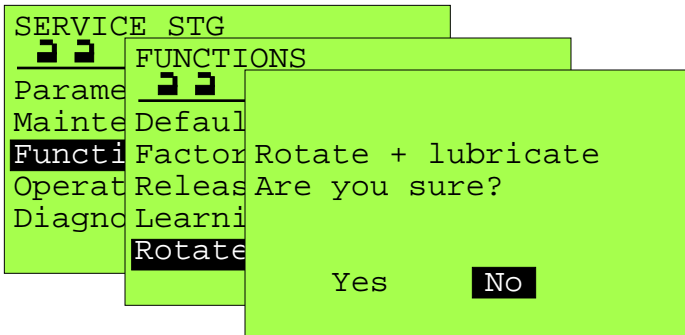




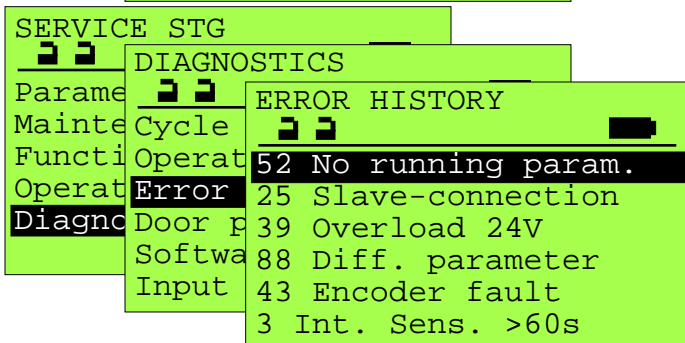
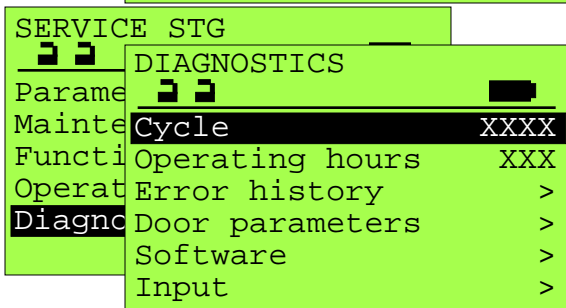
Selecting "Release AKI" will send an actuate signal to the operator, similar to shorting between terminals 1 and 2.



Initiates a calibration run, similar to pressing and holding the Control Button for 3 flashes of the Control LED.



Indicates the current operational mode of the door. Note this screen does not dynamically update in response to changes to the control panel. The Status screen, accessible anytime the terminal is servicing the unit (STG), will dynamically update in response to changes to the control panel(s).



Displays the last 10 errors that have occurred. Useful in determining what has been occurring with the operator prior to servicing.

```

SERVICE STG
  DD
DIAGNOSTICS
  DD
Paramete  DD
Mainte Cycle DD
Functi Operat
Operat Error
Diagnoc Door p
Softwa
Input
  
```

```

DOOR PARAMETERS
  DD
Springiness valu 89
Spring type Unknown
Door p Inertia 7
  
```

For Factory reference.

```

SERVICE STG
  DD
DIAGNOSTICS
  DD
Paramete  DD
Mainte Cycle DD
Functi Operat
Operat Error
Diagnoc Door p
Softwa
Input
  
```

```

SOFTWARE
  DD
Running cycle XX
Status 3
Door p Reboot 31
  
```

For Factory reference.

```

SERVICE STG
  DD
DIAGNOSTICS
  DD
Paramete  DD
Mainte Cycle DD
Functi Operat
Operat Error
Diagnoc Door p
Softwa
Input
  
```

```

INPUT
  DD
AKI
AKA
SSK
SIS
SIO
RAILBE
BODYGU
  
```

```

INPUT
  DD
BDEM_1 0
BDEM_2 1
VAK 0
AUX1 0
RAILBE MF_BUTTON 0
BODYGU RESET 0
NOTAUS 0
  
```

This screen provides a real time status for each of the control's inputs. A "0" indicates the input is not actuated, a "1" indicates it is actuated.

- AKI = Approach Sensor
- AKA = Two-Way traffic 2nd Approach Sensor
- SSK = Remote Switch (active when unit is off)
- SIS = Door Mounted Approach Sensor
- SIO = Door Mounted Swing-side Safety Sensor
- RAILBEAM = Guide Rail Safety Beam
- BODYGUARD = Transom mounted Safety
- BDEM_1 = Rocker Switch "Hold Open"
- BDEM_2 = Rocker Switch "Automatic"
- VAK = Locking Monitor Switch
- AUX1 = Input when Bodyguard is disabled
- MF_BUTTON = Pushbutton on control
- RESET = Pushbutton with Rocker switch
- NOTAUS = Fire Alarm Input (14 & 15)

```

AKKU PASS
FLASH PASS
EEPROM PASS
RTC PASS
CAN PASS
  
```

```

FPC902
Version 1.26
Nov 24 2006
10:48:48
  
```

This sequence of screens will access and display the files currently stored on the removable MMC card located in the top of the FPC-902 Terminal. The next page will document the transfer of the appropriate files into the operator control.

```

FPC902
  DD
Service STG
Service STG Slave >
Flash-Programmer >
Setup >
  
```

```

FLASH PROGRAMMER
  DD
Automatic update >
Manual update >
Indicate files >
Check files >
  
```

```

INDICATE FILES
  DD
BDE-D V1.17
DFA127 V1.32
FPC902 V1.26.hex
STA19US V1.50
RED19CP1 V1.40
RED19CP2 V1.40
  
```

The following sequence of screens are to be followed when updating door and display software.

```
AKKU          PASS
FLASH        PASS
EEPROM       PASS
RTC          PASS
CAN          PASS
```

```
FPC902
Version 1.26
Nov 24 2006
10:48:48
```

```
FPC902
-----
Service STG
Service STG Slave >
Flash-Programmer >
Setup >
```

```
FLASH PROGRAMMER
-----
Automatic update >
Manual update >
Indicate files >
Check files >
```

```
CAN nodes are
searched ...
■■■■■■■■□□□□□□
```

```
Updates are
searched ...

DFA127 VX.XX
replace by
DFA127 VX.XX
```

```
Yes No
```

```
Updates are
searched ...

BDE-D VX.XX
replace by
BDE-D VX.XX
```

```
Yes No
```

```
AKKU      PASS
FLASH     PASS
EEPROM    PASS
RTC       PASS
CAN       PASS
```

```
FPC902
Version 1.26
Nov 24 2006
10:48:48
```

```
FPC902
-----
Service STG      >
Service STG Slave >
Flash-Programmer >
Setup           >
```

```
SETUP
-----
Renew license    >
Select language  >
```

Not available in US versions

```
RENEW LICENSE
-----
Lapse counter: 500
ID: 3 076 305 230
KEY: █
```

```
AKKU      PASS
FLASH     PASS
EEPROM    PASS
RTC       PASS
CAN       PASS
```

```
FPC902
Version 1.26
Nov 24 2006
10:48:48
```

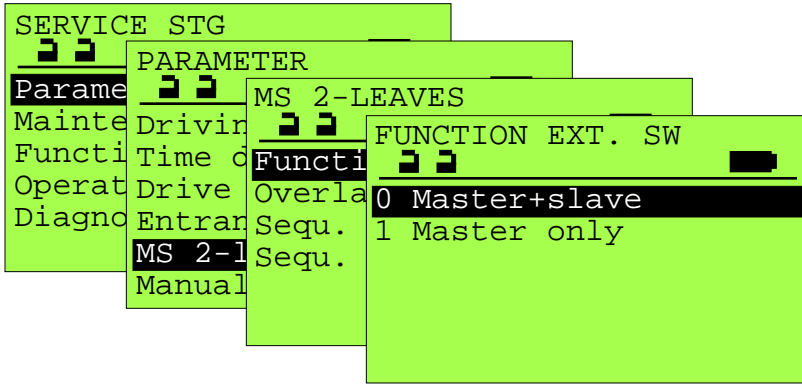
```
FPC902
-----
Service STG      >
Service STG Slave >
Flash-Programmer >
Setup           >
```

```
SETUP
-----
Renew license    >
Select language  >
```

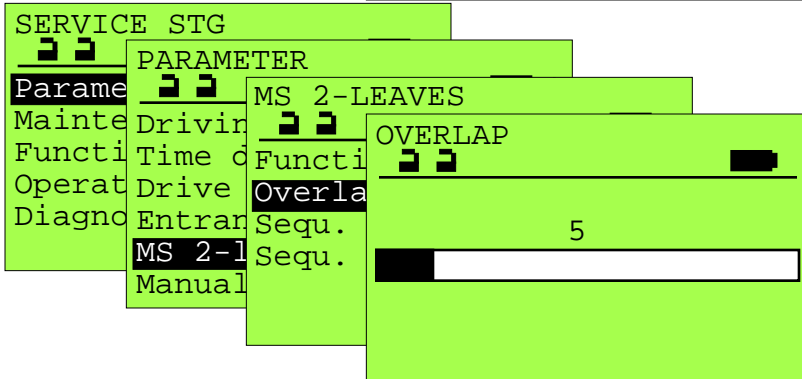
Selects the desired language used by the FPC-902

```
SELECT LANGUAGE
-----
DEUTSCH
FRANCAIS
ENGLISH
ENGLISH US
```

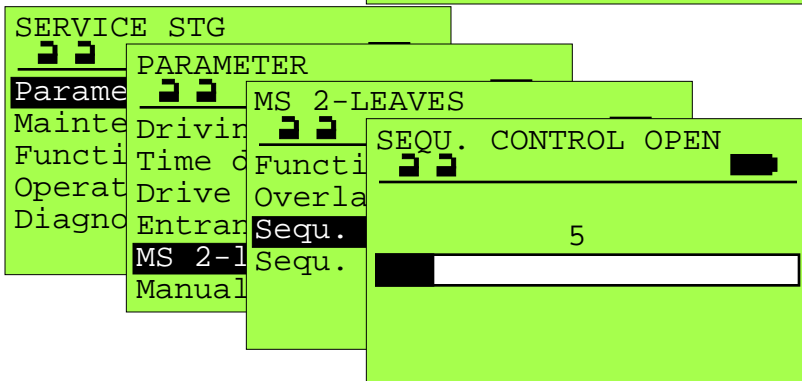
Screens Available when synchronizing two operators Both Simultaneous Pairs and Double Egress



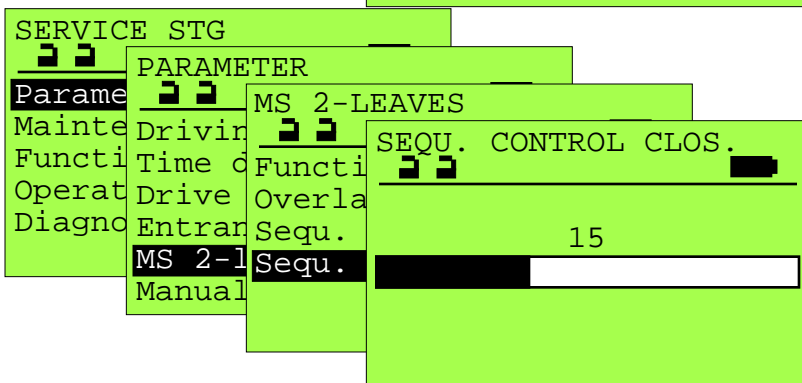
This is automatically set by the controls upon reading the Master / Slave jumper block (J13) on the controls.



This sets the lead time and lag time between operation of the master and slave operators, useful with an overlapping astragal. When set above 0, the Master begins opening before the slave and will stop 10° before fully closed, allowing the slave to close first. When set to 0, operation is simultaneous.



This adjusts a delay time between when the master operator begins opening and when the slave begins. Closing will not be affected. When set to 0, operation is simultaneous.



This adjusts a delay time between when the slave operator begins closing and when the master begins closing. Opening will not be affected. When set to 0, operation is simultaneous.

When ordered as a dual synchronized pair or a double egress, the operators are factory wired and parameters preset. If any changes are made, the following setup sequence is suggested - Insure Jumper J14 is set to M1 on the master unit and set to S1 on the slave unit. Apply power to both units, then press and hold the blue Control button on the master control for 8 flashes of the red LED (reset to factory defaults). Next press and hold the Control button for 8 flashes on the slave control. Return to the master unit and press & hold the Control button for 3 flashes of its red LED (initiate a calibration run). Finally, press & hold the button for 3 flashes on the slave control. The units should now be configured for synchronous operation, and with the above parameters set to 0 providing simultaneous operation. Note: If only one rocker switch is used, it is to be connected to the master control, and the slave control parameter CONTROL PANEL / MECHANICAL PANEL should be set to 0 3 Pos. (AUTO).