OPERATING INSTRUCTIONS

SMART2

SHURCO®

Wireless SMART2™ Remote
(Version 11)

READ BEFORE INSTALLING

⚠ NOTICE

Do not power SMART2™ or any Shur-Co® wireless system with battery charger alone, as this will likely cause system abnormalities and/or system malfunction. Instead, use 12-volt truck/automobile battery to provide power to trailer.

WIRELESS SMART2™ COMPONENTS

TRANSMITTER REMOTE

❶

CHARGER CRADLE

❷

❸
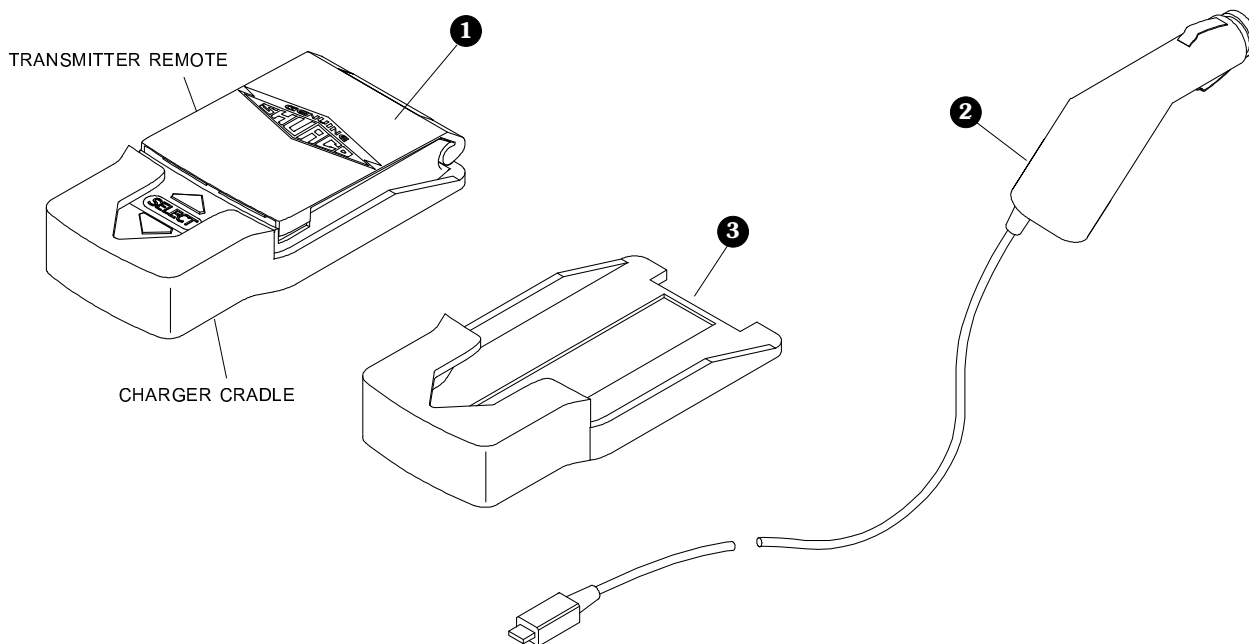
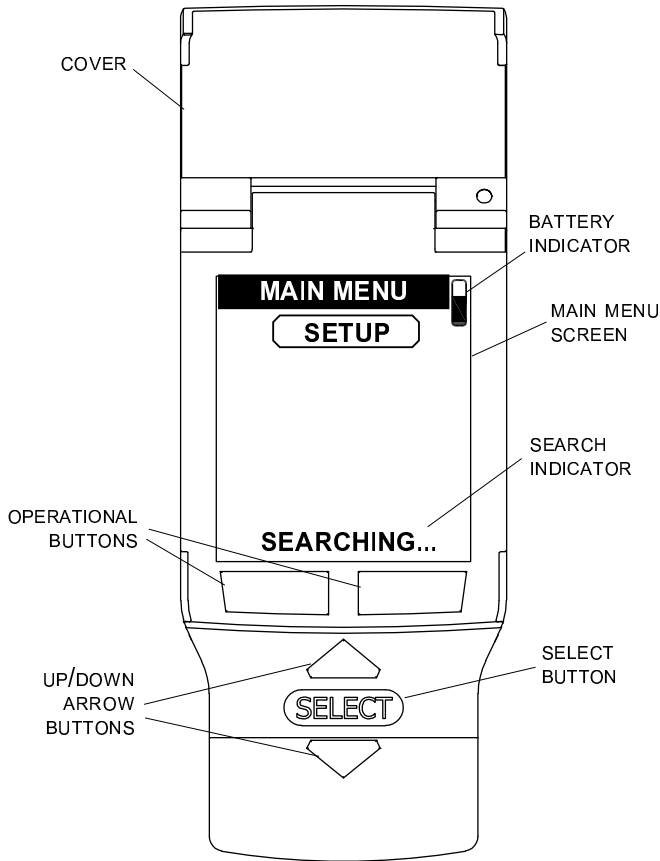| Item	Part #	Description
	1122108	SMART2™ Transmitter Remote Kit (includes remote, cradle and charging cable)
1.	1122231	SMART2™ Replacement Transmitter Remote w/Cradle
2.	1704958	SMART2™ Transmitter Charger Cable
3.	1704957	SMART2™ Replacement Cradle

POWER UP/DOWN

Remote will power up when cover is open. If cover is already open and remote is off, power up remote by pressing either operational button.

Remote will power down when cover is closed or left open for three minutes after last button is pushed.
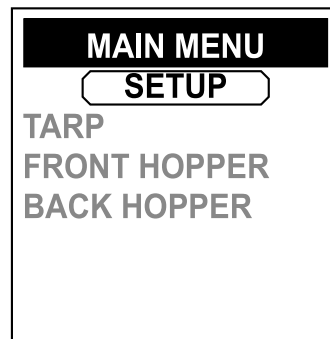
COVER

BATTERY INDICATOR

MAIN MENU
SETUP

MAIN MENU SCREEN

SEARCH INDICATOR

OPERATIONAL BUTTONS

SEARCHING...

SELECT BUTTON

UP/DOWN ARROW BUTTONS

SELECT

*NOTE: This manual is for SMART2™ remotes that are version 11. To check version of your remote, go to **SETUP** menu, arrow down to **INFORMATION** (near bottom of list) and press **SELECT**. If version listed is not 11, obtain correct manual from Shur-Co®. Call Help Line below or visit www. shurco/support/manuals.*

PAIR DEVICES (INTRODUCE REMOTE TO RECEIVERS)

Each remote and receiver has a unique security code to prevent unauthorized operation. Before remote can operate receiver module, they must be paired, or introduced. This is typically done at factory before shipping. If remote must be introduced to receiver, or if second remote is being added to system, follow instructions below.

Method 1: Make sure power is supplied to receiver. For receivers shown in step 4A, remove eight fasteners holding plastic cover onto receiver assembly.

STEP 1: From **MAIN MENU** on remote, make sure **SETUP** is circled and press **SELECT**.

MAIN MENU
SETUP
TARP
FRONT HOPPER
BACK HOPPER

STEP 2: Arrow to **ADD DEVICE** and press **SELECT**.

SETUP MENU
TO MAIN MENU
DEFAULT DEVICE
DEVICE ORDER
ADD DEVICE
EDIT DEVICE
DELETE DEVICE
MAIN MENU MODE
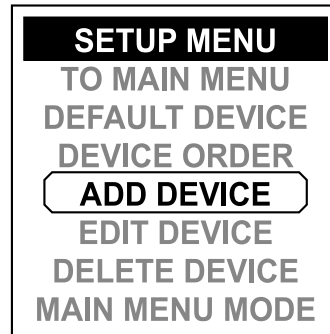
STEP 3: Remote will now be waiting for a receiver to enter pairing mode.

NEW DEVICE
WAITING. . .
HOLD BUTTON ON
TARGET RECEIVER
FOR 5 SECONDS
TO PAIR DEVICE.
BACK TO SETUP

STEP 4A: For receiver cover shown below (tarp, hopper, etc.), You will need to reach blue button inside gray cover. Press and hold blue button for approximately five seconds. Release after red LED starts flashing.

WIRES CONNECTED TO SOLENOID

BLUE PROGRAMMING BUTTON

RED LED
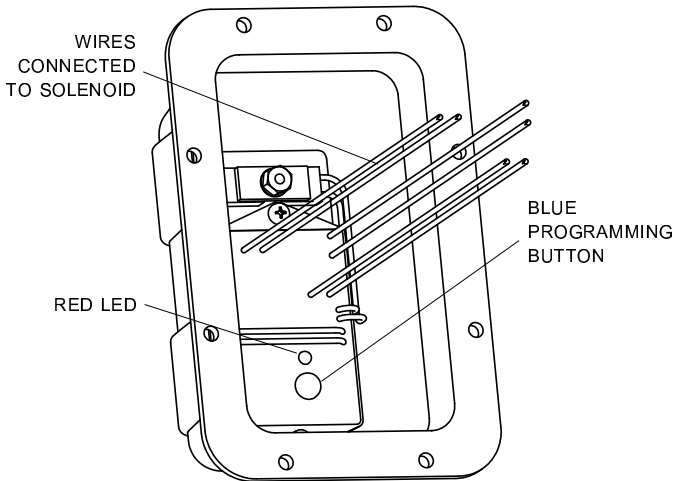
STEP 4B: For LiteALL™ control module, press and hold *Output A* button for approximately five seconds. Release button after green LED starts flashing.

OUTPUT A BUTTON

OUTPUT A   OUTPUT B
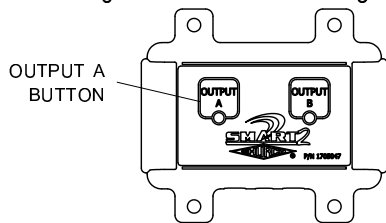
STEP 4C: For Mini Modules shown below, press and hold both buttons for approximately six seconds, then release.

BUTTON A   BUTTON B

OPEN   CLOSE

SHURCO.COM   DECAL 1705312
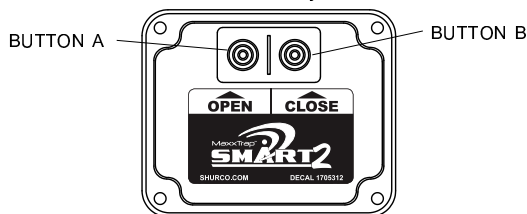
STEP 5: Remote will confirm it has detected receiver. Verify device type (tarp, hopper, etc.) is correct and press *Select*.

ADD NEW DEVICE
DEVICE FOUND
TYPE: HOPPER
ID: 0000008E
VERSION: 011
ADD DEVICE
CANCEL

DEVICE TYPE CAN BE TARP, HOPPER, LIGHTS, ETC.

⚠ **NOTICE**

If device type is incorrect, call Shur-Co® Help Line. You can damage system if you operate wrong device-type receiver.

STEP 6: You can rename device at this time. If you choose, see section on renaming your device on page 9. This can be done later, if desired. If current name is acceptable, highlight *Accept* and press *Select* button to continue.

CHANGE NAME
HOPR0000008E
ACCEPT
CANCEL
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
0123456789<_

DELETE UNWANTED CHARACTERS WITH BACK ARROW SYMBOL "<"

ENTER SPACE WITH UNDERSCORE SYMBOL "_"

STEP 7: For motor control receivers (tarp, hopper, etc.), press *Select* button to confirm and add device. You will see a message confirming information has been saved.

ADD NEW DEVICE
DEVICE ADDED:
TYPE: TARP
ID: 00000093
VERSION: 011
SELECT - OK
SET STOPS

STEP 8: If you have additional SMART2™ devices on your trailer that need to be paired, repeat process for remaining devices. When you are done, all new devices should show up on *Main Menu* of remote within a few seconds after opening cover.

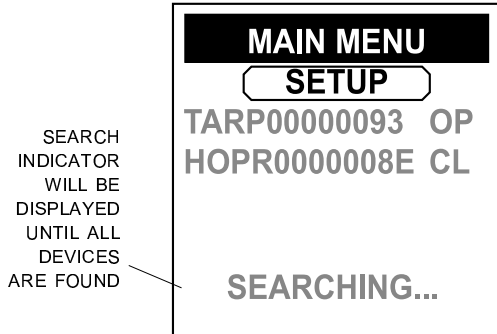**STEP 9:** Refasten plastic cover onto receiver assembly (applies only to receiver shown in step 4A).

Method #2:
If you already have a remote that is paired to a device, and you want to introduce a second remote, there is an alternate method to put device into *Learn* mode.

Instead of pressing button on Mini Module in step 4, use old remote that is already paired to module and select *Set To Learn* from *Edit Device* menu.
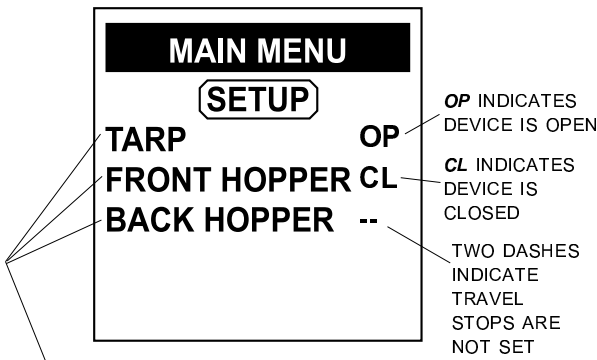

STANDARD OPERATION

When cover is opened, remote will default to *Main Menu* screen. *Setup* option will always be available on *Main Menu* screen. Any paired (introduced) devices will appear on *Main Menu* screen within a few seconds if connected to power and within range.

SEARCH INDICATOR WILL BE DISPLAYED UNTIL ALL DEVICES ARE FOUND

```
        MAIN MENU
     ┌───────────┐
     │   SETUP   │
     └───────────┘
   TARP00000093   OP
   HOPR0000008E   CL


      SEARCHING...
```

While *Setup* is highlighted, a search indicator, *Searching..*, will be displayed at bottom of *Main Menu* screen until all paired devices have been found.

> **NOTE:** *If you ordered an upgrade kit, remote may not be paired with device yet. See section on pairing (introducing) devices.*
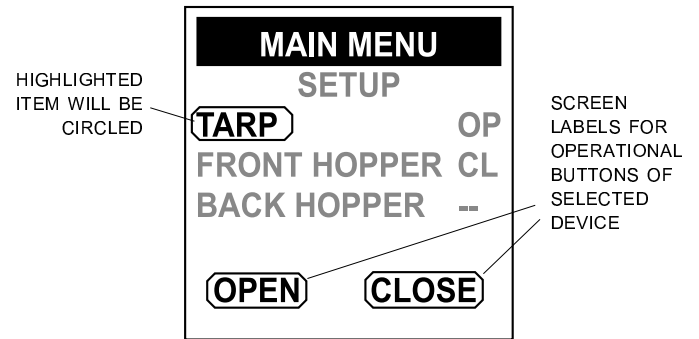
> **NOTE:** *When devices are paired with remote, they will show up with default names like TARP00000093. Rename each device as you choose (example: TRLR4 TARP or FRONT HOPPER) by using* **SETUP** *menu on remote. See section on renaming devices.*

```
        MAIN MENU
     ┌───────────┐
     │   SETUP   │
     └───────────┘
   TARP             OP
   FRONT HOPPER CL
   BACK HOPPER    --
```

OP INDICATES DEVICE IS OPEN

CL INDICATES DEVICE IS CLOSED

TWO DASHES INDICATE TRAVEL STOPS ARE NOT SET

AFTER A FEW SECONDS, PAIRED (INTRODUCED) DEVICES WILL BE DISPLAYED ON MAIN MENU SCREEN

> **NOTE:** *Devices must be connected to power and close by in order for remote to locate them.*

Use up/down arrow buttons to highlight device you wish to operate. In figure below, tarp system is highlighted. Use operational buttons to control selected device. For motorized devices, selected device will operate in whatever mode (*Manual* or *Express*) you have set as default. See section on setting default operating mode.

HIGHLIGHTED ITEM WILL BE CIRCLED

SCREEN LABELS FOR OPERATIONAL BUTTONS OF SELECTED DEVICE

```
        MAIN MENU
          SETUP
   ┌──────┐
   │ TARP │          OP
   └──────┘
   FRONT HOPPER  CL
   BACK HOPPER     --

   ┌──────┐  ┌───────┐
   │ OPEN │  │ CLOSE │
   └──────┘  └───────┘
```

> **NOTE:** *Tarping systems ship from factory defaulted to* **EXPRESS MODE**. *However, travel stops must be set before system will operate in* **EXPRESS MODE**. *Press* **SELECT** *on highlighted device to access detailed control screen. Tarping systems will also operate in* **EXPRESS MODE** *when operated from buttons on trailer Mini Module, if travel stops are set.*

You can operate devices in two different modes:

Manual Mode - Motor runs only while command button is pressed.

Express Mode - Motor runs automatically until it reaches end of travel or until you press any button on remote to stop it.

STANDARD OPERATION (MANUAL MODE - MOTORIZED DEVICES)

In *Manual Mode*, the selected device can be operated by pressing and holding operational buttons labeled *Open* or *Close*.

If travel stops have been set, current position of device will be displayed on screen. Once motor reaches end of travel, screen will show tarp or trap fully open or closed.

TARP SYSTEM SELECTED

POSITION INDICATOR WILL APPEAR AFTER TRAVEL STOPS HAVE BEEN SET

MANUAL MODE SCREEN

OPEN/CLOSE LABELS FOR OPERATIONAL BUTTONS

```
          TARP
     ─────────────
       MANUAL MODE
   ┌─────────────────┐
   │  TO MAIN MENU   │
   └─────────────────┘
   TO EXPRESS MODE
   TARP   V011
        100% OPEN
   �_____▐

   ┌──────┐  ┌───────┐
   │ OPEN │  │ CLOSE │
   └──────┘  └───────┘
```
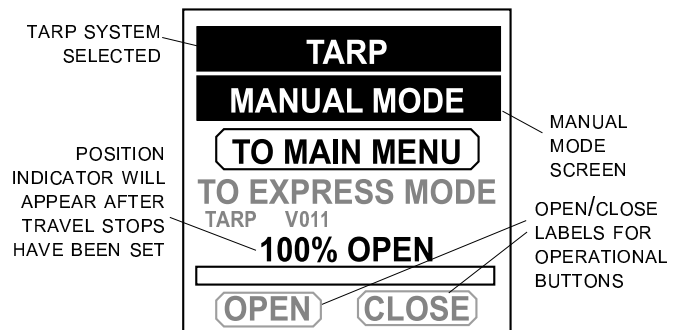
STANDARD OPERATION (EXPRESS MODE - MOTORIZED DEVICES)

To temporarily switch to *Express Mode*, use down arrow button to highlight *To Express Mode* and press *Select*.

HIGHLIGHT "TO EXPRESS MODE" & PRESS SELECT

```
┌────────────────────────┐
│  ████████████████████  │
│  ██    TARP        ██  │
│  ██  MANUAL MODE   ██  │
│   TO MAIN MENU         │
│  (TO EXPRESS MODE)     │
│   TARP   V011          │
│       CLOSED           │
│  ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓    │
│  (OPEN)   (CLOSE)      │
└────────────────────────┘
```
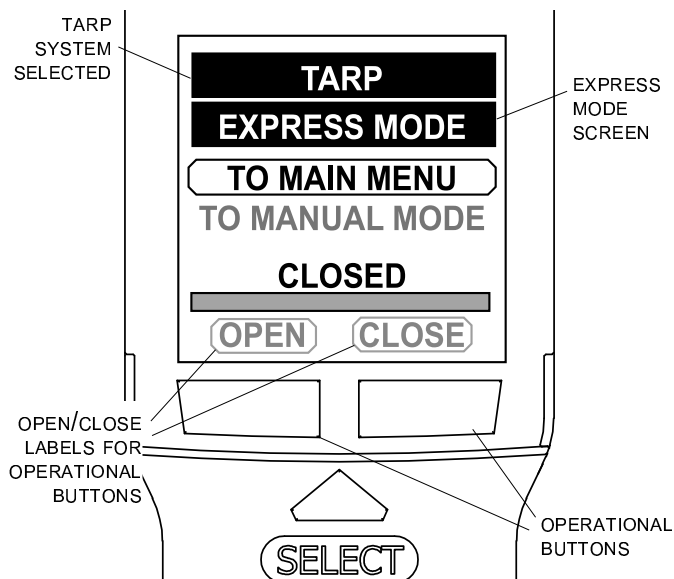
NOTE: Set travel stops before **EXPRESS MODE** can be used.

NOTE: Travel stops can only be set on Shur-Co® motors that have an encoder cable, such as 4500 Series HD and Protrap® motors.
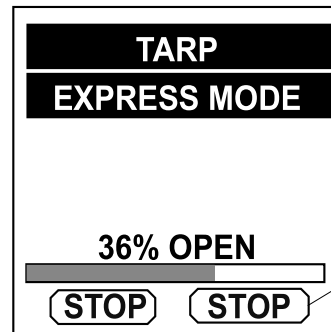
In *Express Mode*, simply press and release operational button labeled *Open* or *Close*. If you need to stop operation before it reaches travel stop, just press any button or close cover.

NOTE: If tarp system is commanded to operate in **EXPRESS MODE** from push-buttons on trailer-mounted Mini Module, remote will only stop system if **OPEN** or **CLOSE** buttons are pressed. Remote will not stop system if **SELECT** or arrow buttons are pressed or if remote cover is closed.

TARP
SYSTEM
SELECTED

EXPRESS
MODE
SCREEN

```
┌────────────────────────┐
│  ████████████████████  │
│  ██    TARP        ██  │
│  ██ EXPRESS MODE   ██  │
│  ( TO MAIN MENU )      │
│   TO MANUAL MODE       │
│       CLOSED           │
│  ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓    │
│  (OPEN)   (CLOSE)      │
└────────────────────────┘
```

OPEN/CLOSE
LABELS FOR
OPERATIONAL
BUTTONS

OPERATIONAL
BUTTONS

(SELECT)

NOTE: If you always use **EXPRESS MODE**, you can select it as default operating mode. Default operating mode can be set individually for each system (tarp, front hopper, back hopper, etc.). See section on setting default operating mode on page 11. Tarp systems shipped from factory defaulted to **EXPRESS MODE**, but will operate in momentary fashion until travel stops are set.

While motorized device is operating, current position of device will be displayed on screen. Once motor reaches end of travel, motor will shut off and screen will show device as fully open or closed.

```
┌────────────────────────┐
│  ████████████████████  │
│  ██    TARP        ██  │
│  ██ EXPRESS MODE   ██  │
│                        │
│                        │
│      36% OPEN          │
│  ▓▓▓▓▓▓▓▓▓▓░░░░░░░░     │
│  (STOP)   (STOP)       │
└────────────────────────┘
```

PRESS ANY
BUTTON
OR CLOSE
COVER TO
STOP MOTOR
IN EXPRESS
MODE

NOTE: Many devices (including tarp and standard hopper controllers) expect system to tighten (or partially "stall") on closed side before remote will display **CLOSED** status.

NOTE: If motor cannot travel to full open or closed position (due to a heaped load or other obstruction), motor will travel as far as it can and stop automatically. Display will then show system partially open and an error message will be displayed.
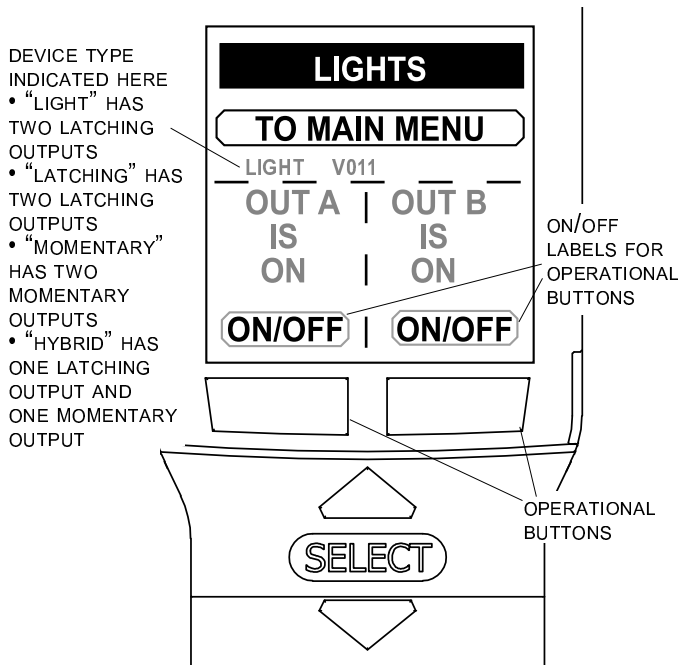
STANDARD OPERATION (DUAL-OUTPUT DEVICES; MOMENTARY, LATCHING & HYBRID)

For lights and other dual-output latching devices, press operational button labeled *On/Off* to toggle output on and off.
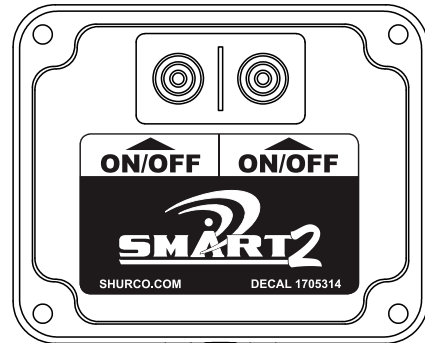
Display on remote will indicate whether output is currently on or off. Refer to device manual for additional information.

For dual-output momentary devices, press and hold operational button labeled *On/Off* to keep device on. Release button and device will turn off.

NOTE: For dual-out hybrid devices, **OUTPUT A** will be latching and **OUTPUT B** will be momentary.

DEVICE TYPE INDICATED HERE
• "LIGHT" HAS TWO LATCHING OUTPUTS
• "LATCHING" HAS TWO LATCHING OUTPUTS
• "MOMENTARY" HAS TWO MOMENTARY OUTPUTS
• "HYBRID" HAS ONE LATCHING OUTPUT AND ONE MOMENTARY OUTPUT

ON/OFF LABELS FOR OPERATIONAL BUTTONS
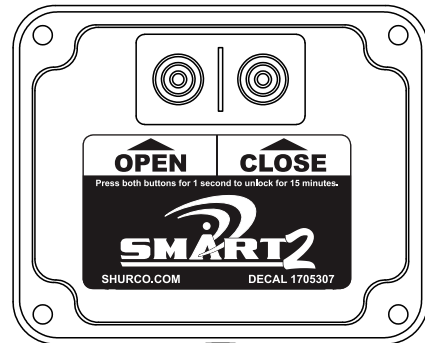
OPERATIONAL BUTTONS

DUAL OUTPUT MINI MODULES

LIGHT MINI MODULE

LATCHING MINI MODULE

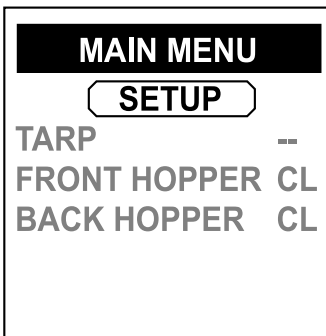**MOMENTARY MINI MODULE WITH OPEN/CLOSE DECAL**

HYBRID MINI MODULE

SET TRAVEL STOPS (END STOPS)
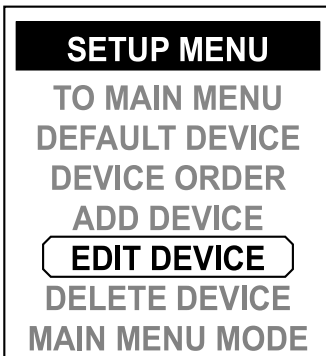**FOR MOTORIZED DEVICES**

SMART2™ system can learn and remember where you want each motorized device to stop on open side. After installing system, installer can teach motor controller where travel stops are located. Unless something changes on your trailer, you will only need to do this once.

NOTE: *Travel stops can only be set on Shur-Co® motors that have an encoder cable, such as 4500 Series HD and Protrap® motors.*
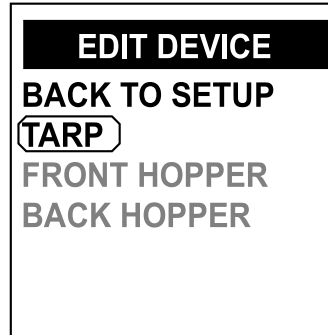
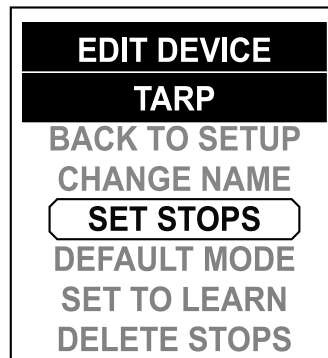**STEP 1:** From main menu, make sure *Setup* is circled and press *Select*.

```
        MAIN MENU
      ( SETUP )
  TARP              --
  FRONT HOPPER   CL
  BACK HOPPER    CL
```

STEP 2: Arrow to *Edit Device* and press *Select*.

```
        SETUP MENU
     TO MAIN MENU
     DEFAULT DEVICE
     DEVICE ORDER
       ADD DEVICE
    ( EDIT DEVICE )
     DELETE DEVICE
    MAIN MENU MODE
```

STEP 3: Arrow to highlight desired device and press *Select*.

```
        EDIT DEVICE
  BACK TO SETUP
  (TARP)
  FRONT HOPPER
  BACK HOPPER
```

STEP 4: Arrow to *Set Stops* and press *Select*.

```
        EDIT DEVICE
           TARP
     BACK TO SETUP
     CHANGE NAME
    ( SET STOPS )
     DEFAULT MODE
     SET TO LEARN
     DELETE STOPS
```

STEP 5: Select *Set End Stops* option.

```
    SELECT STOP TYPE
           TARP
     BACK TO SETUP
    ( SET END STOPS )
     SET MID STOPS
    (Mid Stops Optional)
```
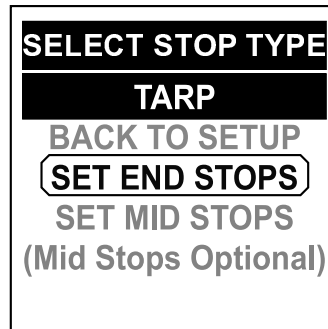
STEP 6: Select *Accept* option.

```
     SET STOPS MENU
        CANCEL
      ( ACCEPT )
    SELECTING ACCEPT
     AND PROCEEDING
     WILL CLEAR ALL
      TRAVEL STOPS
```
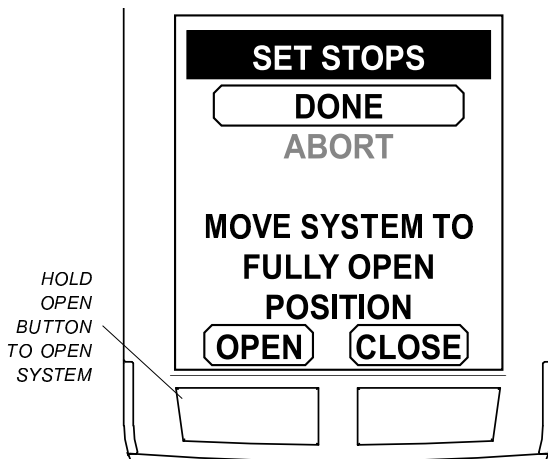
STEP 7: **Press operational button labeled** *Close* **to move device** (tarp, hopper door, etc.) **to fully closed position. Continue holding button until motor automatically turns off.** Make sure there are no abnormal conditions that might stop device from fully closing, like heaped load or ice buildup on trap door. Verify device (tarp, hopper door, etc.) is fully closed. Press *Select* to save this position.

> **NOTE:** *System will automatically turn off within approximately one second of tightening on closed side. Do not attempt to set closed side stop just before point where system tightens up. During operation, control module will always look for system to tighten up (partially "stall") before system will turn off and display* **CLOSED***.*

SET STOPS
DONE
ABORT

MOVE SYSTEM TO
FULLY CLOSED
POSITION
OPEN   CLOSE

HOLD CLOSE BUTTON TO CLOSE SYSTEM
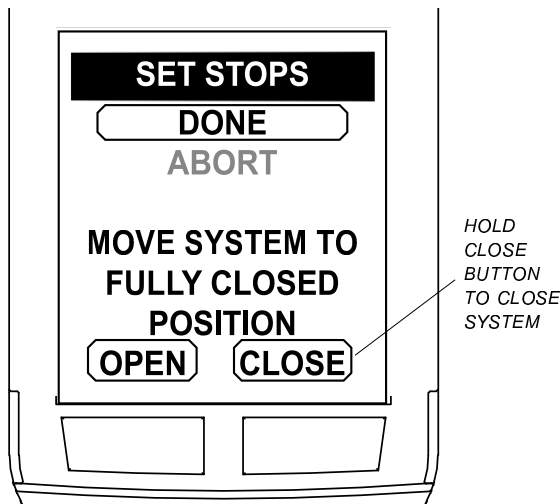
STEP 8: Press *Open* to move device to desired open side location. Open side travel stop should be set so device will stop prior to making contact with any mechanical stop (tarp stops, hopper door stop, etc.). This will save on system wear and tear. Press *Select* to save this position.

SET STOPS
DONE
ABORT

MOVE SYSTEM TO
FULLY OPEN
POSITION
OPEN   CLOSE

HOLD OPEN BUTTON TO OPEN SYSTEM

STEP 9: Press *Select* to complete *Set Stops* procedure if you accept responsibility for operating system in *Express Mode*. Press any other button to cancel.

** NOTICE **
**BY PRESSING
THE SELECT
BUTTON, YOU
ASSUME THE
RESPONSIBILITY
OF THE EXPRESS
OPERATING MODE**

STEP 10: Press *Select* after confirmation screen is displayed.

TRAVEL STOPS
SET SUCCESSFULLY

SELECT CONTINUE
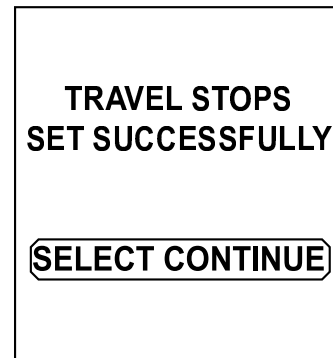
CLEARING (DELETING) TRAVEL STOPS

If you do not plan to operate system in *Express Mode* and you do not need position feedback, clear travel stops by selecting *Abort* in step 7 above.

Alternately, go to *Setup*, then *Edit Device*, then select device, then *Delete Stops*.

If you do not have your remote, clear travel stops by holding programming button shown on page 3, step 4.
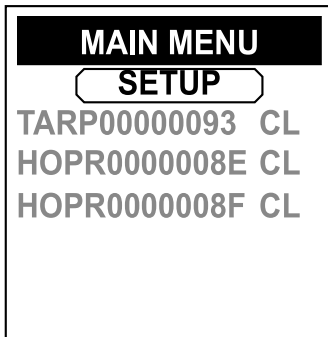
- If you have standard Mini Module shown on page 3, step 4A, red light will stop blinking after blue button is held for 30 seconds. Release blue button after light stops blinking.

- If you have small Mini Module shown on page 3, step 4C, there is no indicator light, so use clock or watch to make sure *Button A* and *Button B* are held down together for 35 seconds.
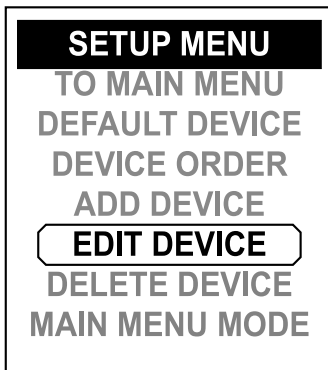
RENAME DEVICES

Name of each device displayed on remote can be changed by following this procedure.

NOTE: *On LiteALL™ module and Mini Module, both outputs can be given a custom name also (see LiteALL™ Owner's Manual or page 11 in this manual).*
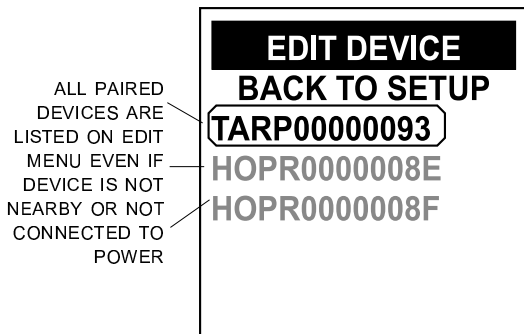
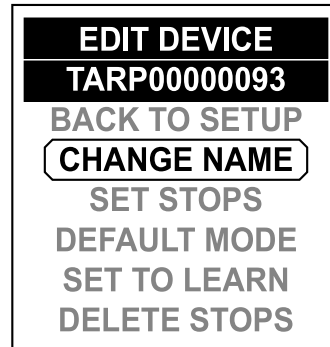**STEP 1:** From *Main Menu*, make sure *Setup* is circled and press *Select*.

```
        MAIN MENU
         SETUP
   TARP00000093  CL
   HOPR0000008E CL
   HOPR0000008F CL
```

STEP 2: Arrow down to *Edit Device* and press *Select*.

```
        SETUP MENU
      TO MAIN MENU
      DEFAULT DEVICE
      DEVICE ORDER
       ADD DEVICE
       EDIT DEVICE
      DELETE DEVICE
      MAIN MENU MODE
```

STEP 3: Press arrow buttons to highlight device you wish to rename, then press *Select*.

ALL PAIRED DEVICES ARE LISTED ON EDIT MENU EVEN IF DEVICE IS NOT NEARBY OR NOT CONNECTED TO POWER

```
       EDIT DEVICE
      BACK TO SETUP
      TARP00000093
      HOPR0000008E
      HOPR0000008F
```

STEP 4: Highlight *Change Name* and press *Select*.

```
       EDIT DEVICE
      TARP00000093
      BACK TO SETUP
      CHANGE NAME
       SET STOPS
      DEFAULT MODE
      SET TO LEARN
      DELETE STOPS
```

STEP 5: Arrow to highlight back arrow symbol and press *Select* to delete unwanted characters.

```
      CHANGE NAME
      TARP00000093
        ACCEPT
        CANCEL
     ABCDEFGHIJKLM
     NOPQRSTUVWXYZ
       0123456789<
```

DELETE UNWANTED CHARACTERS WITH BACK ARROW SYMBOL

ENTER SPACE WITH THIS SYMBOL
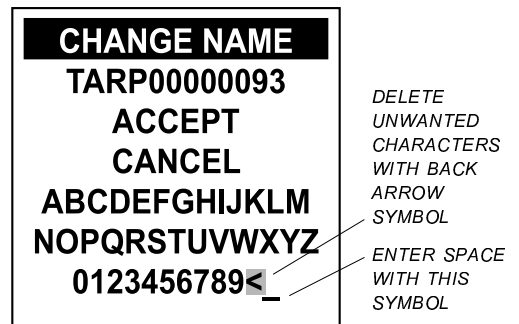
STEP 6: Arrow up or down to highlight desired characters and enter by pressing *Select*. When done, arrow to *Accept* and press *Select*.

```
      CHANGE NAME
   TARP
        ACCEPT
        CANCEL
     ABCDEFGHOJKLM
     NOPQRSTUVWXYZ
       0123456789<
```

STEP 7: Remote will confirm name has been changed. Press *Select* button to finish.

```
   TARP
      NAME CHANGED

     SELECT CONTINUE
```
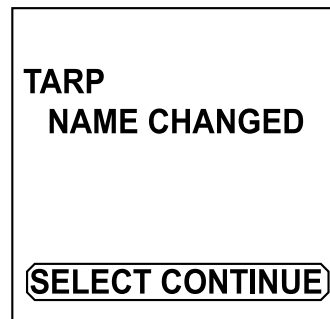
SET DEFAULT DEVICE (OPTIONAL)

From factory, remote defaults to *Main Menu* when lid is opened. If desired, a default device can be selected so remote jumps directly to detailed control page for that device for immediate operation when lid is opened.
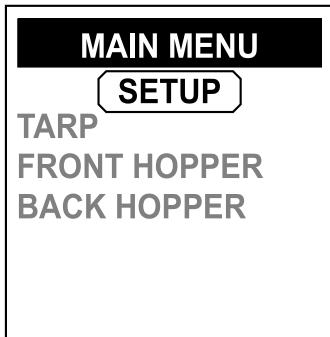
> **NOTE:** *A default device will only be ready for immediate operation if receiver on trailer is connected to power and within range.*

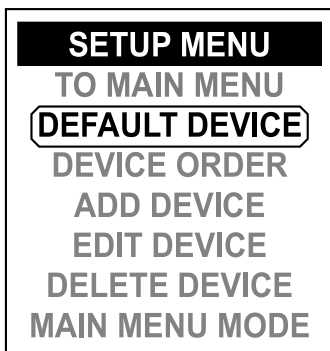Setting a default device can save time by eliminating unnecessary button presses in these situations:

• There is only one SMART2™ device being used with remote.

• A particular SMART2™ device is always used first when remote lid is opened.

• A particular SMART2™ device is used more frequently than other devices.

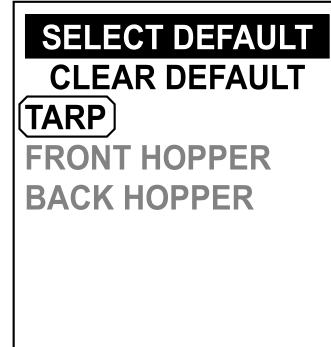Follow instructions below to set a default device on SMART2™ remote.

STEP 1:   From *Main Menu*, make sure *Setup* is circled and press *Select*.

```
        MAIN MENU
        ( SETUP )
    TARP
    FRONT HOPPER
    BACK HOPPER



```

STEP 2:   Highlight *Default Device* and press *Select*.

```
        SETUP MENU
        TO MAIN MENU
     (DEFAULT DEVICE)
        DEVICE ORDER
        ADD DEVICE
        EDIT DEVICE
        DELETE DEVICE
        MAIN MENU MODE
```

STEP 3:   Highlight desired default device and press *Select*.

```
    SELECT DEFAULT
     CLEAR DEFAULT
    (TARP)
    FRONT HOPPER
    BACK HOPPER




```

STEP 4:   Remote will confirm default device has been changed. Press *Select* to finish.

```


    DEFAULT CHANGED


    (SELECT CONTINUE)


```
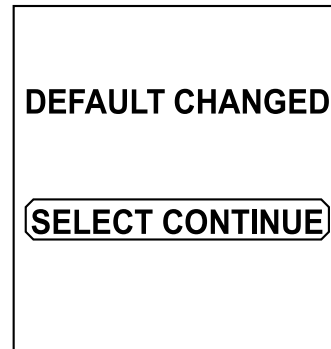
STEP 5:   Close remote cover and re-open. Remote will jump to *Operational* page of default device.

Renaming Outputs (Outputs A and B):
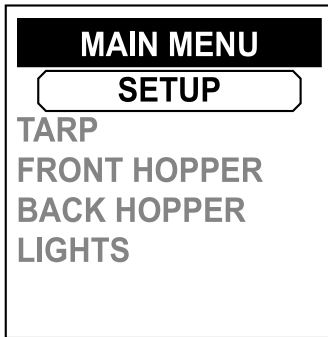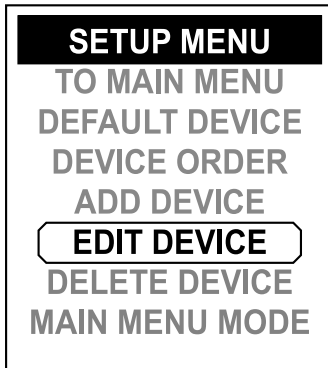In addition to giving the LiteALL™ module and Mini Module a custom name on your SMART2™ remote, you can also rename each of the outputs displayed on the operational screen by following this procedure.
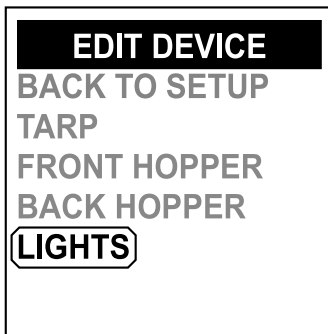
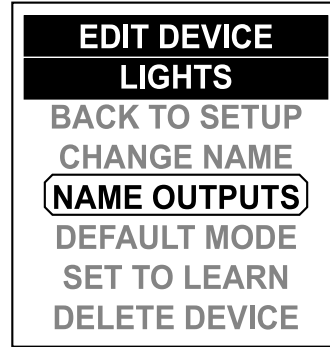**STEP 1:** From *Main Menu*, arrow down to *Setup* and press *Select*.

```
┌─────────────────────────────┐
│         MAIN MENU           │
│  ┌───────────────────────┐  │
│  │        SETUP          │  │
│  └───────────────────────┘  │
│  TARP                       │
│  FRONT HOPPER               │
│  BACK HOPPER                │
│  LIGHTS                     │
│                             │
└─────────────────────────────┘
```

STEP 2: Arrow down to *Edit Device* and press *Select*.

```
┌─────────────────────────────┐
│         SETUP MENU          │
│      TO MAIN MENU           │
│      DEFAULT DEVICE         │
│      DEVICE ORDER           │
│      ADD DEVICE             │
│  ┌───────────────────────┐  │
│  │     EDIT DEVICE       │  │
│  └───────────────────────┘  │
│      DELETE DEVICE          │
│      MAIN MENU MODE         │
└─────────────────────────────┘
```

STEP 3: Use arrow buttons to highlight LiteALL™ device you wish to edit, then press *Select*.

```
┌─────────────────────────────┐
│         EDIT DEVICE         │
│  BACK TO SETUP              │
│  TARP                       │
│  FRONT HOPPER               │
│  BACK HOPPER                │
│  ┌──────────┐               │
│  │ LIGHTS   │               │
│  └──────────┘               │
└─────────────────────────────┘
```

STEP 4: Highlight *Name Outputs* and press *Select*.

```
┌─────────────────────────────┐
│         EDIT DEVICE         │
│         LIGHTS              │
│  BACK TO SETUP              │
│  CHANGE NAME               │
│  ┌───────────────────────┐  │
│  │    NAME OUTPUTS       │  │
│  └───────────────────────┘  │
│  DEFAULT MODE              │
│  SET TO LEARN              │
│  DELETE DEVICE             │
└─────────────────────────────┘
```
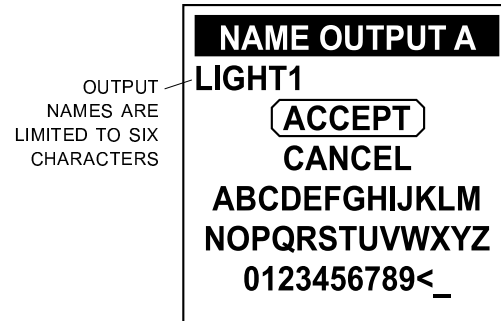
STEP 5: Arrow up or down to highlight the back arrow symbol and press *Select* to delete unwanted characters.

```
┌─────────────────────────────┐
│      NAME OUTPUT A          │
│  OUT A                      │
│        ACCEPT              │
│        CANCEL              │
│    ABCDEFGHIJKLM           │
│    NOPQRSTUVWXYZ           │
│      0123456789<_          │
└─────────────────────────────┘
```
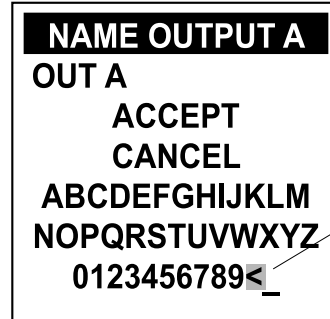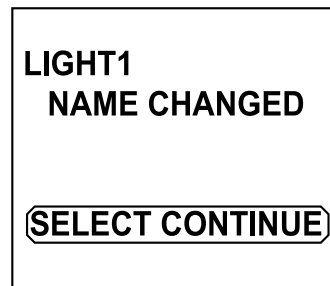
DELETE UNWANTED CHARACTERS WITH THIS SYMBOL

STEP 6: Arrow up or down to desired characters and enter by pressing *Select*. When done, arrow to *Accept* and press *Select*.

OUTPUT NAMES ARE LIMITED TO SIX CHARACTERS

```
┌─────────────────────────────┐
│      NAME OUTPUT A          │
│  LIGHT1                     │
│  ┌──────────┐               │
│  │  ACCEPT  │               │
│  └──────────┘               │
│        CANCEL              │
│    ABCDEFGHIJKLM           │
│    NOPQRSTUVWXYZ           │
│      0123456789<_          │
└─────────────────────────────┘
```

STEP 7: Remote will confirm name has been changed. Press *Select* to finish.

```
┌─────────────────────────────┐
│  LIGHT1                     │
│    NAME CHANGED             │
│                             │
│                             │
│  ┌───────────────────────┐  │
│  │  SELECT CONTINUE      │  │
│  └───────────────────────┘  │
└─────────────────────────────┘
```

STEP 8: Repeat steps 5 through 7 for *Output B*.

SETTING DEFAULT OPERATING MODE (FOR MOTORIZED DEVICES)

After pairing to a device, remote will operate device in its default operating mode. *Express Mode* is default for tarping systems, *Manual Mode* for other motorized systems. At any time, default operating mode can be set to either *Express Mode* or *Manual Mode* for motorized systems.

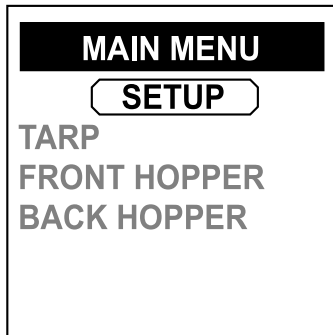*NOTE: See section on Standard Operation for details on* **EXPRESS MODE** *and* **MANUAL MODE**.

NOTE: For **EXPRESS MODE** *to function, travel stops must first be set. See section on setting travel stops.*

Setting default operating mode to *Express Mode* can save time by eliminating unnecessary button presses in these situations:
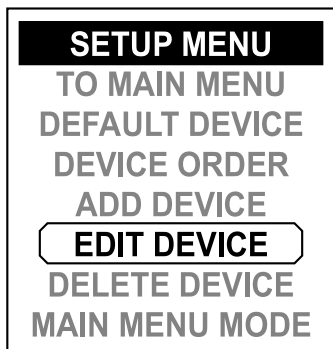
• A particular device will typically be operated in *Express Mode*.

• The operator is comfortable running device in *Express Mode*.

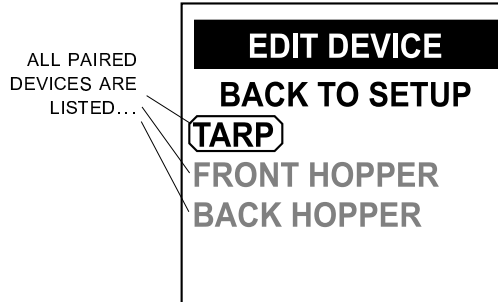Follow instructions below to change default operating mode of a device using SMART2™ remote.

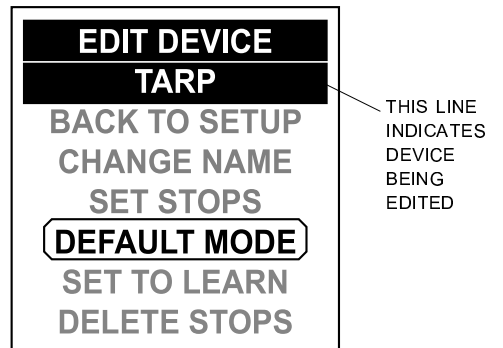**STEP 1:**   From *Main Menu*, make sure *Setup* is circled and press *Select*.

```
        MAIN MENU
        ( SETUP )
   TARP
   FRONT HOPPER
   BACK HOPPER
```

STEP 2:   Highlight *Edit Device* and press *Select*.

```
       SETUP MENU
      TO MAIN MENU
      DEFAULT DEVICE
      DEVICE ORDER
      ADD DEVICE
      ( EDIT DEVICE )
      DELETE DEVICE
      MAIN MENU MODE
```

STEP 3:   Select device for which default operating mode will be changed.

ALL PAIRED DEVICES ARE LISTED…

```
       EDIT DEVICE
      BACK TO SETUP
      ( TARP )
      FRONT HOPPER
      BACK HOPPER
```

STEP 4:   Highlight *Default Mode* and press *Select*.

```
       EDIT DEVICE
          TARP
      BACK TO SETUP
      CHANGE NAME
      SET STOPS
      ( DEFAULT MODE )
      SET TO LEARN
      DELETE STOPS
```

THIS LINE INDICATES DEVICE BEING EDITED

STEP 5:   Highlight desired default operating mode, *Manual Mode* or *Express Mode*, then press *Select*.

```
     SELECT DEFAULT
    OPERATION MODE
         TARP
      CANCEL
      MANUAL MODE
      ( EXPRESS MODE )
```
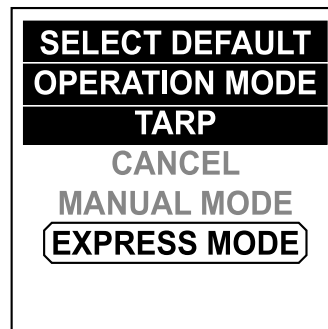
STEP 6:   Remote will confirm default has been changed. Press *Select* to finish.

```
    DEFAULT CHANGED


    ( SELECT CONTINUE )
```
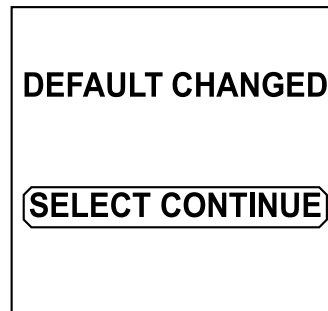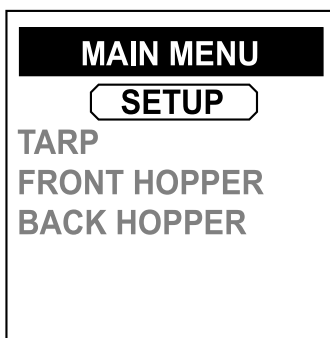
CHANGE DEVICE ORDER ON MAIN MENU

If you have more than one device, it is possible to change order in which devices will be listed on *Main Menu* screen.
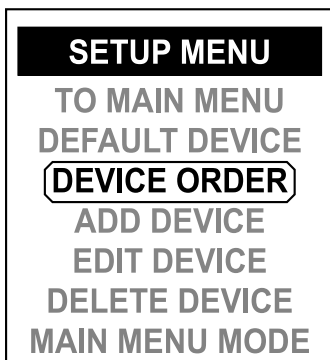
Changing default device order can save time by eliminating unnecessary button presses in these situations:

• A particular SMART2™ device is used more frequently than other devices.

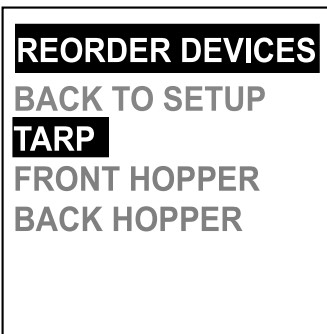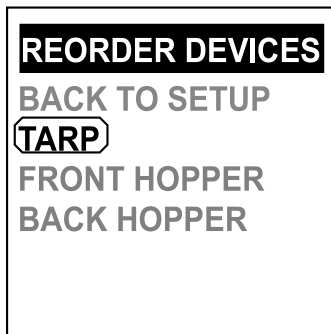• A particular SMART2™ device is typically used first when remote cover is opened.

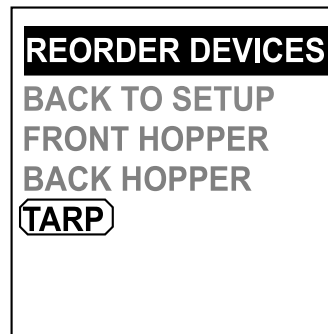**STEP 1:** From *Main Menu*, select *Setup*.

```
MAIN MENU
  SETUP
TARP
FRONT HOPPER
BACK HOPPER
```

STEP 2: Arrow down to *Device Order* and press *Select*.

```
SETUP MENU
  TO MAIN MENU
  DEFAULT DEVICE
 (DEVICE ORDER)
  ADD DEVICE
  EDIT DEVICE
  DELETE DEVICE
  MAIN MENU MODE
```

STEP 3: Arrow to device you want to move on list. Press *Select*. Selected device will be highlighted.

```
REORDER DEVICES
BACK TO SETUP
(TARP)
FRONT HOPPER
BACK HOPPER
```

```
REORDER DEVICES
BACK TO SETUP
TARP
FRONT HOPPER
BACK HOPPER
```

STEP 4: Use arrow buttons to move device up or down list. When you have highlighted device in desired place, press *Select* to set and save new order.

```
REORDER DEVICES
BACK TO SETUP
FRONT HOPPER
BACK HOPPER
TARP
```

```
REORDER DEVICES
BACK TO SETUP
FRONT HOPPER
BACK HOPPER
(TARP)
```

STEP 5: Repeat process if desired for any other devices. When finished, highlight *Back to Setup* and press *Select*.

```
REORDER DEVICES
(BACK TO SETUP)
FRONT HOPPER
BACK HOPPER
TARP
```
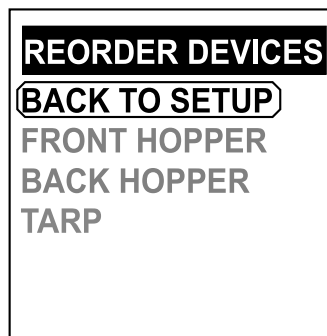
STEP 6: Close and then open remote cover. Your devices should be listed in updated order after remote locates them. Device must be connected to power and within range.

DELETE DEVICE

Any paired device on a remote can be deleted, or erased, from remote's memory.

STEP 1: From *Main Menu*, highlight *Setup* and press *Select*.

STEP 2: Arrow to *Delete Device* and press *select*.

STEP 3: Arrow down to highlight device you want to delete and press *Select*.

STEP 4: Arrow down to highlight *Yes* and press *Select* to confirm. You will see a message confirming information has been saved.

MANUAL OVERRIDE (Motorized Devices Only)

SMART2™ system automatically shuts off if an error is detected or at travel stops. These conditions can be bypassed in *Manual Override*.
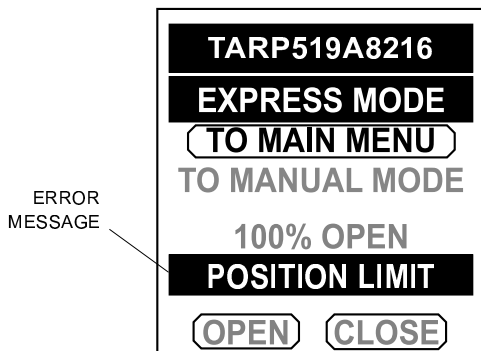
*NOTE: All travel stops are ignored in **MANUAL OVERRIDE** in addition to low motor RPM and low system voltage. Use caution when operating system in **MANUAL OVERRIDE** as system damage may result. Have system serviced if it routinely jumps to **MANUAL OVERRIDE**.*

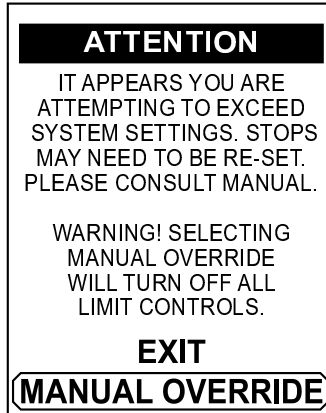Situations where *Manual Override* will be prompted on remote include:
• You attempt to open your tarp or hopper system past open side travel stop.
• Your hopper was overloaded and system shuts off due to low motor RPM.
• Truck battery is almost dead and system detects low voltage and turns off.

Follow instructions below to operate in *Manual Override*:

STEP 1: After automatic shutdown due to error detection, error will be displayed on remote. While error is displayed, press same button (*Open* or *Close*) two more times.

ERROR MESSAGE

TARP519A8216

EXPRESS MODE

TO MAIN MENU

TO MANUAL MODE

100% OPEN

POSITION LIMIT

OPEN   CLOSE

STEP 2: You will be asked if you want to enter *Manual Override*. If you want to proceed, arrow down to *Manual Override* and press *Select*.

ATTENTION

IT APPEARS YOU ARE ATTEMPTING TO EXCEED SYSTEM SETTINGS. STOPS MAY NEED TO BE RE-SET. PLEASE CONSULT MANUAL.

WARNING! SELECTING MANUAL OVERRIDE WILL TURN OFF ALL LIMIT CONTROLS.

EXIT

MANUAL OVERRIDE

STEP 3: Operate system as needed using operational buttons. System will only operate in a momentary fashion (press and hold buttons to operate) while in *Manual Override*. When done moving system, press *Select* to exit override mode and service truck or trailer as needed.

MANUAL OVERRIDE

WARNING: THERE ARE NO LIMIT RESTRICTIONS!

SELECT TO EXIT

POSITION LIMIT

OPEN   CLOSE

ERROR TYPE THAT PROMPTED OVERRIDE MODE WILL BE LISTED HERE

*NOTE: **MANUAL OVERRIDE** can also be activated from receiver on trailer. After system turns off automatically, press same button (**OPEN** or **CLOSE**) two more times. Solenoid in receiver box will click rapidly three times to indicate **MANUAL OVERRIDE**.*

MAIN MENU MODE

Enabling *Main Menu Mode* allows you to control devices from *Main Menu*. *Main Menu Mode* can be enabled or disabled at any time. By default, this feature is enabled.
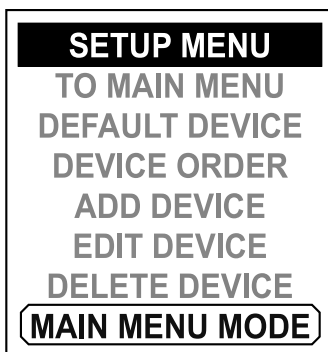
Enabling *Main Menu Mode* can save time by eliminating unnecessary button presses in these situations:

• Multiple devices are operated with remote within a short time of each other.

• The operator prefers operating from *Main Menu* and understands which mode (*Express Mode* or *Manual Mode*) a motorized device will operate in while using *Main Menu Mode*.
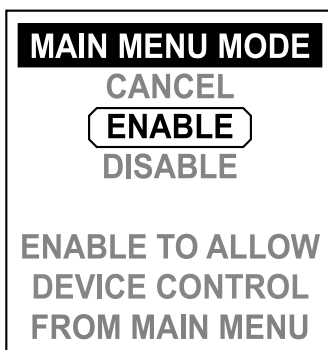
Follow instructions below to enable or disable *Main Menu Mode*:

STEP 1: From *Main Menu*, highlight *Setup* and press *Select*.
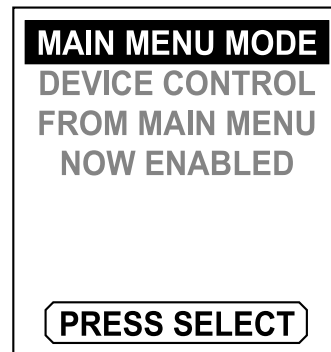
STEP 2: From *Setup Menu*, highlight *Main Menu Mode* and press *Select*.

```
┌─────────────────────────┐
│     SETUP MENU          │
│    TO MAIN MENU         │
│   DEFAULT DEVICE        │
│   DEVICE ORDER          │
│     ADD DEVICE          │
│    EDIT DEVICE          │
│   DELETE DEVICE         │
│  ( MAIN MENU MODE )     │
└─────────────────────────┘
```

STEP 3: Arrow down and circle *Enable*, then press *Select* to enable *Main Menu Mode*. If you want to disable *Main Menu Mode*, highlight *Disable* and press *Select*.

```
┌─────────────────────────┐
│   MAIN MENU MODE        │
│      CANCEL             │
│   ( ENABLE )            │
│      DISABLE            │
│                         │
│  ENABLE TO ALLOW        │
│  DEVICE CONTROL         │
│  FROM MAIN MENU         │
└─────────────────────────┘
```

STEP 4: You will see a confirmation screen. Press *Select*.

```
┌─────────────────────────┐
│   MAIN MENU MODE        │
│  DEVICE CONTROL         │
│  FROM MAIN MENU         │
│    NOW ENABLED          │
│                         │
│                         │
│  ( PRESS SELECT )       │
└─────────────────────────┘
```

STEP 5: You will see an *Info Saved* message flash briefly, then remote will jump to *Setup Menu*. Go to *Main Menu*.

STEP 6: Arrow down to circle a device on *Main Menu*. It may take a few second for devices to pop up on *Main Menu*. Note there are now labels above operational buttons if *Main Menu Mode* is enabled.
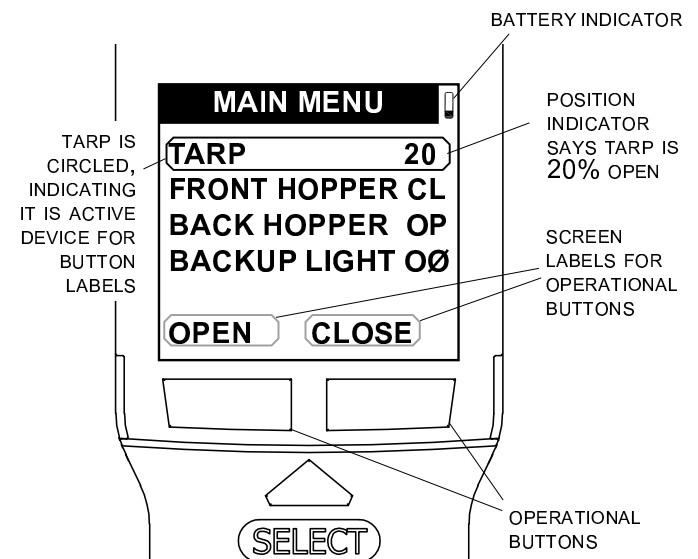
STEP 7: You may now use operational buttons to control highlighted device. For motorized devices, highlighted device will operate in whatever mode (*Manual Mode* or *Express Mode*) you have set as default mode. See section on setting default operating mode.
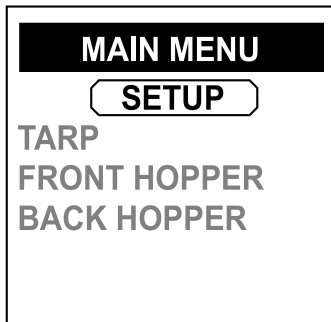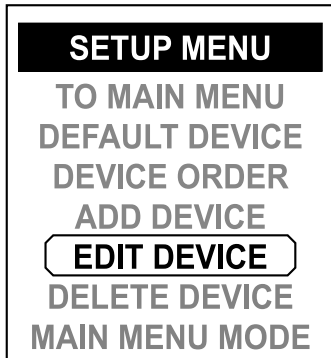
ADJUST SHUT-DOWN TORQUE OF DEVICE

Shut-down torque can be adjusted on certain devices, including ProTrap® and MaxxTrap™ electric hopper door openers.

- Decreasing shut-down torque will reduce force applied to system on closed side but may cause system to turn off and display error message under heavy loads (fertilizer loads on hopper device, for example).

- Increasing shut-down torque will allow motor to continue to operate under heavier loads without turning off and displaying error message. However, motor will also apply more force to system on closed side.
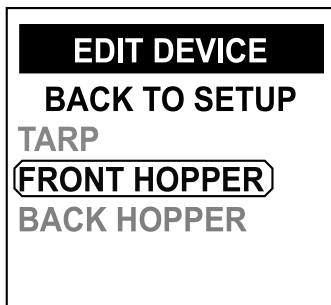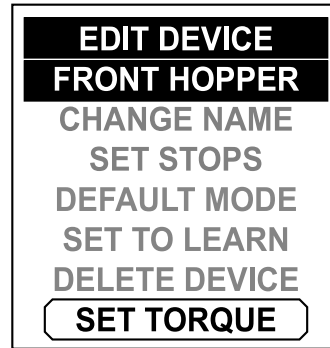
STEP 1: From *Main Menu*, select *Setup*.

```
        MAIN MENU
         SETUP
  TARP
  FRONT HOPPER
  BACK HOPPER
```

STEP 2: From *Setup Menu*, highlight *Edit Device* and press *Select*.

```
        SETUP MENU
     TO MAIN MENU
     DEFAULT DEVICE
     DEVICE ORDER
       ADD DEVICE
       EDIT DEVICE
     DELETE DEVICE
     MAIN MENU MODE
```

STEP 3: From *Edit Menu*, highlight device to be adjusted.

```
       EDIT DEVICE
     BACK TO SETUP
  TARP
  FRONT HOPPER
  BACK HOPPER
```

STEP 4: From *Edit Device* menu for selected device, arrow down to *Set Torque* and press *Select*.

```
       EDIT DEVICE
      FRONT HOPPER
     CHANGE NAME
      SET STOPS
     DEFAULT MODE
     SET TO LEARN
     DELETE DEVICE
       SET TORQUE
```

STEP 5: From *Set Torque* menu, use up and down arrows to change setting. To cancel, close cover. To save, press *Select*.

```
       SET TORQUE
      FRONT HOPPER
     THIS SETTING IS THE
     MAX TORQUE BEFORE
    AUTO MOTOR SHUT-DOWN

     TORQUE = MED

    UP/DN TO CHANGE
    SELECT TO SAVE
```
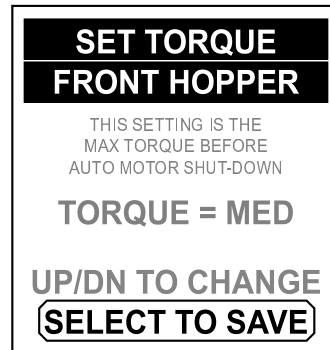
*NOTE: Factory default setting for hopper is **MED**.*

STEP 6: You will get a confirmation screen. Press *Select* and repeat process for any other devices.
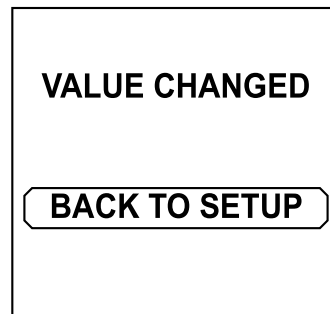
```
     VALUE CHANGED

     BACK TO SETUP
```

Our **Advanced Troubleshooting Guide** is available on our website: **http://www.shurco.com**, or call our Help Line: **1-866-748-7435**.

PROBLEM:	TRY THIS:
The SMART2™ remote is not working; the display is totally dead and is not displaying anything.	**1.** If the remote lid has been left open, the remote may have powered down. Wake the remote up by closing the lid and then re-opening it. Alternatively, you can wake the remote up by pressing an operational button (*Open/Close*).
	2. The battery may be dead. Place the remote in the charging cradle and open the lid. Make sure the charging cable is properly connected to the power source and to the cradle. If the remote works in the cradle, allow the remote to charge.
	3. The remote may be damaged. Call Shur-Co's Help Line.
The SMART2™ remote is not working; the display is working, but the device I want to control is not listed on the *Main Menu* screen. OR I have set a default device, but the device screen is displaying *Searching...*	**1.** For the device you are trying to control, bring the remote near the receiver. Make sure the SMART2™ receiver is connected to power. One way to verify that the receiver has power is to remove the gray cover on the trailer and check if the red LED turns on when you press the blue programming button. Flickering on red LED is normal.
	2. Make sure you have a Version 11 remote. To check version go to *Setup Menu*, then *Information*. Verify version is 011. If not, call Shur-Co's Help Line.
	3. Delete the receiver from remote and re-introduce the receiver to the remote. See sections *Delete Device* and *Pair Device*.
	4. The remote or receiver may be damaged. Call Shur-Co's Help Line.
I have a motorized system, and it is running backwards.	**1.** Is the device running backwards when controlled with the remote and the buttons on the receiver box? Remove the gray cover from the receiver assembly. Swap the green and yellow wires.
	2. Is the device running backwards only with the buttons on the receiver box, and the remote is operating in the correct direction? Swap the positions of the push-button switches in the gray cover of the receiver assembly.
I have a motorized system, and it will run in one direction but not the other.	**1.** Remove the gray cover from the receiver assembly. Make sure the green and yellow wires are connected to the solenoid and are making good contact.
	2. Do the push buttons on the gray cover work in both directions? If so, the remote may be damaged. Call Shur-Co's Help Line. If not, go to next step.
	3. Clear travel stops (see page 6). Do not reset them. Does system operate in both directions? If so, travel stops were corrupted. Check encoder wire connections and reset travel stops. Call Shur-Co's Help Line if needed. If system still does not operate in one direction, receiver or solenoid my be damaged. Call Shur-Co's Help Line.

PROBLEM:	TRY THIS:
I have a motorized system and: The system will not run with the push-button switches on the gray receiver box; I **can** hear a click from the gray cover when I press the buttons on the box. OR The system is stuttering when I try to operate it.	**1.** There may be a bad battery or poor battery connection. Try hooking up power from a different 12-volt battery and re-test the system. **2.** Is a battery charger or power supply being used to power the system? If so, hook the system/trailer to a truck battery and try again. Battery chargers alone will most likely cause the system to malfunction. **3.** Remove the gray cover from the receiver assembly. Make sure the green and yellow wires are connected to the solenoid and are making good contact. **4.** Check system wiring for corrosion, including any circuit breakers near the truck battery. If corrosion is present, you may get 12 volts to the receiver, but a motorized system may not function due to the resultant voltage drop in the wiring or circuit breaker when the *Open/Close* button is pressed. **5.** Check all encoder wires between motor and receiver for cuts. Make sure connectors are connected tightly. Make sure the black encoder wire is always connected to another black encoder wire at connectors. On 4500 HD tarping systems, make sure sealed weatherpack connectors are snap-locked together. There is one weatherpack connector near the motor and one in the kingpin area. *NOTE: Bypass circuit breaker and test system to verify breaker is not corroded inside.* **6.** Verify that you have 12 volts at the motor while an operational button is being held. If you have 12 volts and the motor is not running, there may be a problem with the motor. If the voltage at the motor drops below 12 volts, check the system wiring for corrosion. You may also have a bad truck battery. Start the truck and try again. Call Shur-Co's Help Line. **7.** The receiver or solenoid may be damaged. Call Shur-Co's Help Line.
I have a motorized system, and it will not run with the push-button switches on the gray receiver box; I **can't** hear a click from the gray cover when I press the buttons on the box.	**1.** Remove the gray cover from the receiver assembly. Verify that 12V is being applied to the motor control module in the gray cover of the receiver box. *NOTE: Make sure voltmeter reads +12 volts and not -12 volts. Do this while red voltmeter lead is contacting red wire ring terminal from module and black voltmeter lead is contacting black wire ring terminal from module.* **2.** The receiver may be damaged. Call Shur-Co's Help Line.
I have a motorized system, and it is displaying that it is still slightly open, but it is actually closed.	**1.** Make sure there is no obstruction to the system (heaped load, ice, etc.). *NOTE: For tarp systems, it is normal for remote to display that it is slightly open if there is a heaped load. Heaped loads will settle, so be sure to check for tarp tension after driving a short distance! After unloading trailer and closing tarp, remote should display that it is closed.* **2.** Make sure you hold the *Close* button long enough for system to tighten on the closed side. **3.** Reprogram your travel stops. Make sure you do not program the stops while there are any obstructions in the way (heaped load, ice, etc.). If this problem occurs again, call Shur-Co's Help Line.
System will not allow *Express Mode* operation.	**1.** Set the travel stops. See section on setting travel stops. **2.** If the travel stops can't be set, check encoder wires as described on page 18, paragraph 5. **3.** Call Shur-Co's Help Line.

Our **Advanced Troubleshooting Guide** is available on our website: **http://www.shurco.com**, or call our Help Line: **1-866-748-7435**.

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