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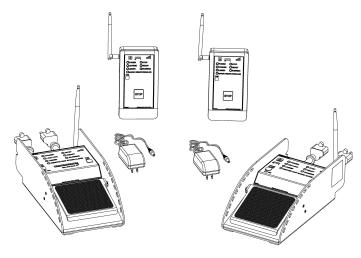


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3/16 Rev. 1 TSS-01 manual



Operating Instructions
Southwire™ Triggers®
Wireless Safety Switch System
TSS-01



Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.



FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SEVERE INJURY OR DEATH.



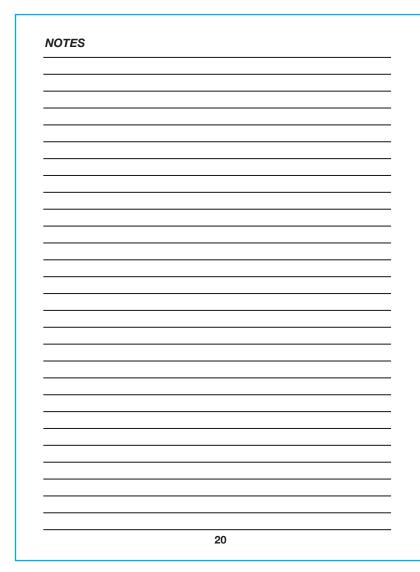


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Description

The Triggers® dual remote foot pedal system is designed for power control and safety for all your cable pulling and feeding applications. The person operating the puller and the person feeding the wire both have control over the puller's motor. The hand held units serve a dual purpose. First, they allow a safety observer to shut down the puller's motor in the event of an emergency. Secondly, they act as a range extender for the system. All of this is accomplished by simply pressing down or lifting off the Triggers foot pedal. Both foot pedals must be engaged in order for the puller motor to operate. Any time either foot pedal is released or the stop button on the hand held unit is pressed the puller motor will stop. The Triggers Master and Remote units may also be used as standalone foot pedals if desired, requiring only one operator to run the cable puller or feeder's motor. Communication between units is wireless. Triggers® foot switches will continue communication up to 1500 feet between walls and obstructions and up to 3.7 miles line of sight. With the addition of Hand Held units, this range can be extended over greater distances. The Triggers units are equipped with a series of lights indicating the units are in range or that one pedal is depressed and the other is not. This helps to decrease the chance of miscommunication during a wire pull.

VOTES		

Warranty On Southwire Contractor Equipment cont.

For all warranty, customer service, and product return authorizations and inquiries, please contact Southwire's Tools & Assembled Products at: Southwire Tools & Assembled Products

840 Old Bremen Road Carrollton, GA, 30117

Phone Number: 1.855.SW.Tools

- 1. All warranty claims must be approved by Southwire's Tools & Assembled Products Warranty Department prior to return of product. If Southwire determines that a product is defective, Southwire will, at its option, repair or replace defective products or defective product components, free of charge.
- 2. Upon approval, Southwire will issue a Product Return Authorization Form which will include instructions on how and where to return the product. The product serial number and the original date of delivery must be set forth on the Product Return Authorization Form.
- 3. Southwire will cover standard freight charges (Ground Courier Rate) incurred in connection with products that Southwire ultimately determines to be defective.
- 4. All defective components and defective products that Southwire replaces under these Warranties will become Southwire's property and will be retained by Southwire.

Repair Your Product When it is Out of Warranty

Southwire is happy to provide information about where a purchaser can send a product for repair at consumers' own expense, please contact 1.855.SW.tools or visit www.southwiretools.com/tools/home.do for more information about servicing for Southwire Products.

Safety

Safety is essential in the use and maintenance of Southwire Tools and Equipment. This instruction manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

⚠ WARNING: Read and understand all instructions and safety information in this manual before operating or servicing this tool.

MARNING: Personal Safety Hazards

- Only qualified persons should operate the Triggers.
- Wear eve protection and hardhat when using this tool.
- Do not use tool while tired or under the influence of drugs, alcohol, or medication.
- · Always follow operating procedures.
- Avoid accidental starting. Make sure switch is off before plugging it in.
- Do not operate this tool with a puller while wearing loose fitting clothing.
- Lift foot off Trigger when wrapping rope on capstan.
- When using this tool, always follow the safety procedures set forth in this manual as well as all other safety procedures necessary and proper when using tools of this type.

↑ WARNING: Tool Use Hazards

- Use this tool for manufacturer's intended purpose only. Any use other than described in this manual can result in injury or property damage.
- Only qualified personnel should use Southwire™ Triggers® Wireless Safety Switch System.

Safety cont.

↑ WARNING: *Electric Shock Hazards*

- Do not expose power tools to rain or wet conditions. Water entering a power tool can increase the risk of electric shock.
- Do not place Triggers in standing water.
- Plug into a (GFCI) ground fault interrupted circuit outlet only.
- Use a 10 gauge 20 Amp 120 Volt extension cord.
- Maintain proper care of power cords. Do not use the cord to carry the tool or pull the plug from an outlet. Replace damaged cords immediately.
 Damaged cords can increase the risk of electric shock.
- Do not use this tool near live circuits. Shut off and lock out power when working near existing circuits.

MARNING: Battery Pack

- Do not open or disassemble battery pack.
- Do not expose to fire or open flame.
- Do not mix batteries of varying sizes or chemistries or types.
- Do not puncture, deform, incinerate, or heat or use in environments above 85°C or 194°F.

FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SEVERE INJURY OR DEATH.

Purpose Of This Manual

This instruction manual is intended to familiarize personnel with the safe operation for the Southwire™ Triggers® Wireless Safety Switch System. Keep this manual available to all personnel. Replacement manuals are available upon request at no charge at www.southwiretools.com.

Warranty On Southwire Contractor Equipment cont.

Exclusion of Incidental, Consequential, Indirect, Special and Punitive Damages

SOUTHWIRE MAKES NO WARRANTY THAT SOUTHWIRE CONTRACTOR EQUIPMENT PRODUCTS WILL BE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE. SOUTHWIRE MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, OTHER THAN THE RELEVANT WARRANTY SPECIFICALLY SET FORTH IN THIS WARRANTY SECTION. SOUTHWIRE WILL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES FOR ANY BREACH OF THIS LIMITED LIFETIME WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Warranty On Southwire Contractor Equipment

What Does This Warranty Cover?

Five-Year Limited Warranty on Contractor Equipment

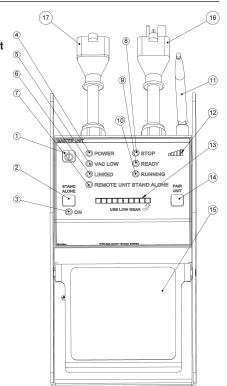
Under Southwire's Contractor Equipment 5-Year Limited Warranty, Southwire Company, LLC warrants that all Southwire Contractor Equipment will be free from manufacturer defects for a period of five (5) years from the date of the original end user's purchase. However, electrical components and consumable parts such as ropes, blades, dies, draw studs, grips, are excluded from this 5-Year Limited Warranty and are subject to the One -Year warranty terms. Under this 5-Year Limited Warranty, the following are also excluded and Southwire Company, LLC will have no liability for any of the following: normal wear and tear resulting from product use and damage arising out of misuse, abuse, modification, and improper product maintenance. This warranty also does not cover Southwire Contractor Equipment products that have been modified by any party other than Southwire Company, LLC or its authorized third party designee. This 5-Year Limited Warranty is not transferrable to or enforceable by any person other than the product's original end user.

OnOne-Year Limited Warranty on Electrical Components and Consumable Parts (with 5-Year warranty)

Under Southwire's 1-Year Limited Warranty, Southwire Company, LLC warrants that all electrical components and consumable parts such as ropes, blades, dies, draw studs, grips will be free from manufacturer defects for a period of one-year from the date of the original end user's purchase. Under this 1-Year Limited Warranty, Southwire Company, LLC will have no liability for any of the following: normal wear and tear resulting from product use and damage arising out of misuse, abuse, modification, and improper product maintenance. This warranty also does not cover Southwire electrical components and consumable parts that have been modified by any party other than Southwire Company, LLC or its authorized third party designee. This 1-Year Limited Warranty is not transferrable to or enforceable by any person other than the product's original end user.

Master Unit Identification

- 1. Power Switch
- 2. Stand Alone Switch
- 3. Stand Alone On Indicator Light
- 4. Power Indicator Light
- 5. Vac Low Indicator Light
- 6. Linked Indicator Light
- 7. Master Unit Stand Alone Indicator Light
- 8. Stop Indicator Light
- 9. Ready Indicator Light
- 10. Running Indicator Light
- 11. Antenna
- 12. Signal Strength Indicator
- 13. Amperage Draw Indicator
- 14. Pair Unit Switch
- 15. Foot Pedal
- 16. A/C Power Input 20A 120V
- 17. A/C Power Output 20A 120V



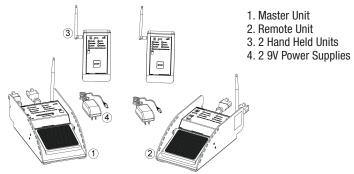
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Master Unit Identification cont.

VISUAL COMMUNICATION

- POWER LIGHT (RED): Indicates unit is powered on
- VAC LOW (AMBER): Indicates A/C line voltage has dropped below recommended optimal range
- LINKED LIGHT (BLUE): Indicates that unit is linked to the system
- REMOTE UNIT STAND ALONE LIGHT (BLUE): Indicates that the remote unit is in stand alone mode
- STOP LIGHT (RED): Indicates that pull is at complete stop
- FLASHING STOP (FORCED STOP): Stop has been pressed on hand held unit
- READY LIGHT (AMBER): Indicates that one pedal is depressed and there is no forced stop condition present
- FLASHING READY: Only one button under foot pedal is depressed
- RUNNING LIGHT (GREEN): Indicates that both pedals are depressed and the pull is in progress
- AMPERAGE DRAW INDICATOR: Shows approximate amperage draw for the puller motor. USE LOW GEAR WHEN AMPERAGE DRAW INDICATOR REACHES MAX IF PULLER IS NOT ALREADY IN LOW GEAR.

Parts List



		~~~
Model Number	Stock Number	Description
TTS-01	59713201	SOUTHWIRE™ Triggers® SET
TSS-MP	59894801	MASTER PEDAL
TSS-RP	59894901	REMOTE PEDAL
TSS-HH	59895001	HAND HELD UNIT
TSS-HHC	59895201	9V POWER SUPPLY
TSS-CC	59713101	CARRYING CASE
TSS-B	59973301	BATTERY
TSS-PS	59895301	7 PLUG POWER STRIP

## **Specifications**

- Model# TSS-01
- Stock# 59713201
- Name- Southwire[™] Triggers[®] Wireless Safety Switch System
- Length- 16.42"

- Width- 21.50"
- Height- 12.54"
- Weight- 30 lbs
- Patent Number- U.S. Patent No. 8,058,578 Other Patents Pending

## Operation cont.

#### AMPERAGE DRAW INDICATOR AND LOW VAC INDICATOR

The Amperage Draw Indicator is a reference scale. The unit itself has built-in amperage control to protect against internal damage.

LOW VAC indicator light indicates when the line voltage has dropped below the minimum recommended input voltage. This is not a safety feature and is to be used for reference only. The unit itself does not provide any under voltage protection.

#### **BATTERY CHARGING AND SYSTEM STORAGE**

Both the Remote Unit and the Hand Held Units contain Li-lon battery packs that require periodic freshening charges at least once every 6 months. Before storage, all battery-operated units in the system should be charged to approximately 60 percent. Case provides for quick and easy recharging. Plug in respective 9V cords to Hand Held units and place in case, Plug Remote foot switch into power strip. Plug power strip into outlet and allow all components to charge in the case.

#### **REMOTE PEDAL**

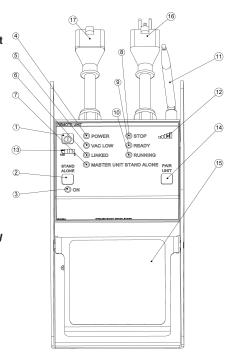
 Plug pedal into outlet. Battery meter will show approximate level of charge. Once charging is complete, the battery meter will go solid.

#### HAND HELD UNIT

- 1. Plug supplied 9V power supply into Hand Held Unit.
- 2. Ensure 9V power supply is plugged into supplied power strip.
- "The "CHARGE" light will illuminate and the battery meter will flash the approximate level of charge. Once charging is complete the battery meter will go solid and the "CHARGE" light will turn off.

#### Remote Unit Identification

- 1. Power Switch
- 2. Stand Alone Switch
- 3. Stand Alone On Indicator Light
- 4. Power Indicator Light
- 5. Vac Low Indicator Light
- 6. Linked Indicator Light
- 7. Master Unit Stand Alone Indicator Light
- 8. Stop Indicator Light
- 9. Ready Indicator Light
- 10. Running Indicator Light
- 11. Antenna
- 12. Signal Strength Indicator
- 13. Battery Meter
- 14. Pair Unit Switch
- 15. Foot Pedal
- 16. A/C Power Input 15A 120V
- 17. A/C Power Output 15A 120V



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#### Remote Unit Identification cont.

#### **VISUAL COMMUNICATION**

- POWER LIGHT (RED): Indicates unit is powered on
- VAC LOW (AMBER): Indicates A/C line voltage has dropped below recommended optimal range
- LINKED LIGHT (BLUE): Indicates that unit is linked to the system
- MASTER UNIT STAND ALONE LIGHT (BLUE): Indicates that the master unit is in stand alone mode
- STOP LIGHT (RED): Indicates that pull is at complete stop
- FLASHING STOP (FORCED STOP): Stop has been pressed on hand held unit
- READY LIGHT (AMBER): Indicates that one pedal is depressed and there is no forced stop condition present
- FLASHING READY: Only one button under foot pedal is depressed
- RUNNING LIGHT (GREEN): Indicates that both pedals are depressed and the pull is in progress
- BATTERY METER: Shows approximate level of charge during use and charging
- RAPID FULL FLASHING BATTERY METER: Shows battery or charging fault
- SINGLE FLASHING BAR: Shows approximate battery level while charging

## Operation cont.

#### MASTER UNIT AS STAND ALONE FOOT SWITCH

- Plug a 20 amp 120 Volt extension cord into the extension cord input (13). If using a 15 amp motor or less you may plug in a 15 amp 120 Volt extension cord using a 20 amp to 15 amp adaptor plug.
- 2. Plug Puller's electrical extension cord into Triggers® switches input (17).
- 3. Turn on the Master Unit by pressing the Power button (1). Power light will indicate power to the unit.
- 4. Press the Stand Alone button ON (2). Light (3) will indicate unit is in Stand Alone and may be used without the Remote or Hand Held Units.
- 5. If the Remote unit or Hand Units are turned on and linked there is an indicator that will show the Master unit is in standalone mode.
  - The Hand Held unit can be used to stop the pull even if the Master unit is in Stand Alone mode.
- Turn on puller's power switch allowing total control to the Triggers Master foot pedal.
- 7. Pushing down on the Triggers Master foot pedal (11) will start the puller's motor. Lifting off of the Foot Pedal will stop the puller's motor.

#### REMOTE UNIT AS STAND ALONE FOOT SWITCH

- 1. Plug a 15 amp 120 Volt extension cord into the extension cord input (17).
- 2. Plug equipment electrical extension cord into Triggers input (17).
- 3. Turn on the Remote Unit by pressing the Power button (1). Power light will indicate power to the unit.
- 4. Switch the Stand Alone button ON (2). Light (3) will indicate unit is in Stand Alone and may be used without the Master or Hand Held Units.
- 5. If the Master unit or Hand Units are turned on and linked there is an indicator that will show the Remote unit is in standalone mode.
  - The Hand Held unit can be used to stop the pull even if the Remote unit is in Stand Alone mode.
- 6. Turn on pusher's power switch allowing total control to the Triggers foot pedal.
- 7. Pushing down on the Triggers Foot Pedal (11) will start the feeder's motor. Lifting off the Foot Pedal will stop the feeder's motor.

## Operation

## Before using the Triggers® system all battery powered units should be fully charged

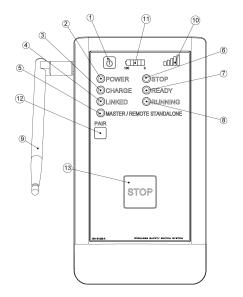
- Turn on Master Unit by pressing the power button (1). Power light
   will indicate power to the unit.
- 2. Turn on the Remote Unit by pressing the Power button (1). Power light will indicate power to the unit.
- 3. Turn on the Hand Held Units by pressing the Power button (1). Power light will indicate power to the unit.
- 4. The Master unit will scan for Remote or Hand Held units. As they are found, an LED on the amperage indicator will light up and the Signal Strength Indicator on the corresponding Remote or Hand Held Unit will display signal strength. This process can take several seconds.
- 5. Once all units are accounted for, Press the pedal on the master unit and all units' "LINKED" light will come on.

## BEFORE USING THE SYSTEM TO PULL CABLE VERIFY THAT ALL UNITS FUNCTION AS OUTLINED BELOW

- Prior to engaging the foot pedals, the indicator light will show "STOP".
- If both pedals are engaged the "RUNNING" indicator will be on and the output to the feeder or puller's motor will be turned on.
- If either pedal is lifted the puller will stop and the indicator light will read "READY".
- If stop button is pressed on any Hand Held unit, the puller will stop and the "STOP" light will flash on the Master, Remote and Hand unit on which it was pressed. This is a "forced stop". The other Hand Held units will have a solid "STOP" light. To clear this condition hold down the stop button on the unit on which it was pressed until the "STOP" light guits flashing.

#### Hand Held Unit Identification

- 1. Power Switch
- 2. Power Indicator Light
- 3. Charge Indicator Light
- 4. Linked Indicator Light
- 5. Stand Alone Indicator Light
- 6. Stop Indicator Light
- 7. Ready Indicator Light
- 8. Running Indicator Light
- 9. Antenna
- 10. Signal Strength Indicator
- 11. Battery Meter
- 12. Pair Unit Switch
- 13. Stop Switch



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### Hand Held Unit Identification cont.

#### **VISUAL COMMUNICATION**

- POWER LIGHT (RED): Indicates unit is powered on
- CHARGE (AMBER): Indicates unit is charging
- LINKED LIGHT (BLUE): Indicates that unit is linked to the system master/remote
- STAND ALONE LIGHT (BLUE): Indicates that either master or remote unit is in stand alone mode
- STOP LIGHT (RED): Indicates that pull is at complete stop
- READY LIGHT (AMBER): Indicates that one pedal is depressed and there is no forced stop condition present
- RUNNING LIGHT (GREEN): Indicates that both pedals are depressed and the pull is in progress

## **Pairing Instructions**

#### System comes from the factory with all units Paired.

- 1. Turn on Master Unit.
- 2. Turn on all other units to be paired.
- 3. Hold down "PAIR" button on Master unit until "LINKED" light begins flashing.
- 4. Hold "PAIR" button on unit to be paired to Master until the "LINKED" light starts flashing.
- 5. Once unit is paired one LED on the Amperage draw indicator will light up for each paired unit, the "LINKED" light on the unit being paired will turn off and the unit will cycle through all of the LED's.
- Repeat step 4 for each additional unit to be paired. Each additional unit paired will have a corresponding LED light up on the Amperage Draw Indicator.
- 7. The number of units paired can be verified by counting the number of LED's lit up on the Amperage Draw Indicator.
- 8. Once all desired units are paired press the "PAIR" button on the Master Unit to complete the pairing process

**NOTE:** If adding to or removing units from the system it is suggested, but not necessary, that all units be re-paired. To clear all paired units, on Master pedal hold down the "PAIR UNIT" button while turning on the pedal. This will clear the list of all previously paired units and put the pedal into pairing mode. Once this has been done, start from step 4 of the pairing instructions.

## **System Operation**

#### SFT IIP

- Plug a 20 amp 120 Volt, 10 gauge extension cord into the extension cord input (16) of the Master Unit. If using a 15 amp motor or less you may plug in a 15 amp 120 Volt extension cord using a 20 amp to 15 amp adaptor plug.
- 2. Plug Puller's electrical cord into Triggers input (17).
- 3. Lift up antenna (11).