



## **TSC1500 GYM CONTROL SYSTEM**

### **Total System Control 1500**

Wall mounted touchpad control system shall be designed as an alternate to conventional key switch type controls, to operate backstops, divider curtains, electric height adjusters, overhead volleyball systems, batting cages and power control for auxiliary gymnasium electrical equipment such as lighting, scoreboards, etc. The TSC1500 shall be capable of operating a maximum amount of 160 devices and a maximum of 50 auxiliary devices. Anything else less is not considered equal. With safety in mind, the TSC1500 Key Pad requires constant pressure on the pad to control gym equipment. Control of auxiliary equipment only requires a single press of the pad.

The TSC1500 shall provide a time saving control feature for multiple operations of basketball backstops, height adjusters, curtains and auxiliary devices. These devices may be operated individually or in a group setting. With each device being able to be on its own dedicated circuit, more than 8 devices can be ran simultaneously. There will be one group type for auxiliary devices and one for standard moving devices. There are a total of 75 possible moving groups the system can control and a total 24 auxiliary groups it can control. This allows having up to multiple backstops in a group or multiple curtains in a group for example or turning on multiple sets of lights. Any other system capable of less is not considered equal.

The security log in will be a four digit password. This password can be changed at any time. It can also be manually reset to factory default from the relay board. If no button has been pressed within the time window of thirty seconds the system will lock and log itself off. The TSC1500 can use a maximum of up to 8 keypads within a system. Key pad shall be flush mounted into a standard square electrical box (4" X 4" X 2 ½") with a 12volt circuit to relay panels.

The TSC1500 will include a single master relay node capable of operating 10 devices. The system is expandable up to 16 relay node boxes until 160 devices are reached. Relay circuits are capable of up to 250v with a 30 amp load. There are 20 relays per relay node. Size of each relay box is 18" wide X 24" tall X 6" deep.

The TSC1500 will feature a tri color LED and a buzzer to provide feedback to the user during operation. The system shall also include an LED at the relay board to show activation of relay. The keypad is fuse protected at the master relay board for circuit protection. Control systems not utilizing an LED and buzzer will not be accepted as equal.

Exclusive to PSS, the TSC1500 has a manual control override feature that will allow the operator to manual operate each device individually in the event of a Key Pad failure via the TSC-MC (included).

Wiring of all electrical components shall be in accordance with local codes, and in accordance with manufacturer's instructions. All conduit, wiring, junction boxes, and components not specified shall be furnished and installed by electrical contractor. In addition, relay panel dip switch settings and relay set programming per the facilities requirements shall be the responsibility of the electrical contractor.

#### **OPTIONS:**

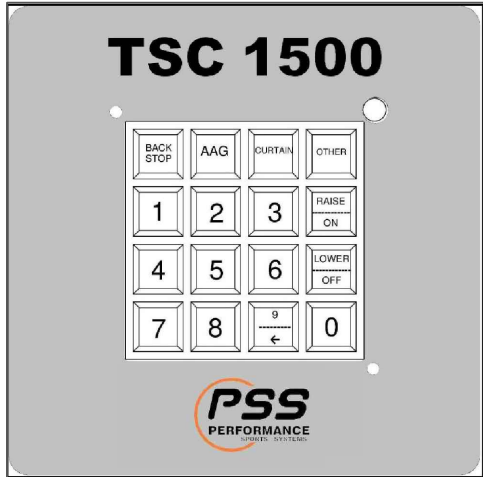
TSC1500-RB -Additional relay node for control of more than 10 devices.

TSC1500-KP –Additional Key Pad for ease of access in large facilities.

TSC1500-RB-UL –UL listed relay node for projects requiring a UL listed gym control system.

Subject to design change and current manufacturing practices.  
Revised April 10, 2014 ©2008 Gared Holdings, LLC

**IMPORTANT: THE VOLTAGE PROVIDED MUST BE STABLE. IF UNSTABLE CAN CAUSE PROBLEMS WITH SYSTEM.**



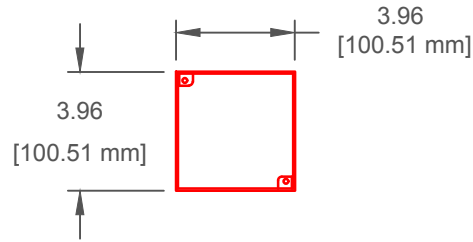
**KEYPAD**

**IMPORTANT: THE SHIELD OF THE COMMUNICATION WIRE BETWEEN THE RELAY BOX AND THE INTERFACE MUST BE GROUNDED AT ONE END.**

**COMMUNICATION WIRE:**  
2:18 AWG DUAL TWISTED PAIR 24V SHIELDED CABLE OR 22-18 AWG 4 CONDUCTOR SHIELDED CABLE

ALL INCOMING POWER LINES ARE TO BE LANDED IN THE "IN" ON THE TERMINAL BLOCKS J6-J15.

USE THE "OUT" OF TERMINALS J6-J15 FOR FEEDING THE "IN" ON TERMINALS J6-J15 WHEN LIMITED ON INCOMING CIRCUITS.  
NOTE: YOU CAN ONLY RUN TWO DEVICES ON ONE 30 AMP CIRCUIT AND ONE DEVICE ON A 20 AMP CIRCUIT.  
SET GROUP FUNCTIONS ACCORDINGLY AS TO NOT OVER LOAD THE INCOMING CIRCUITS.

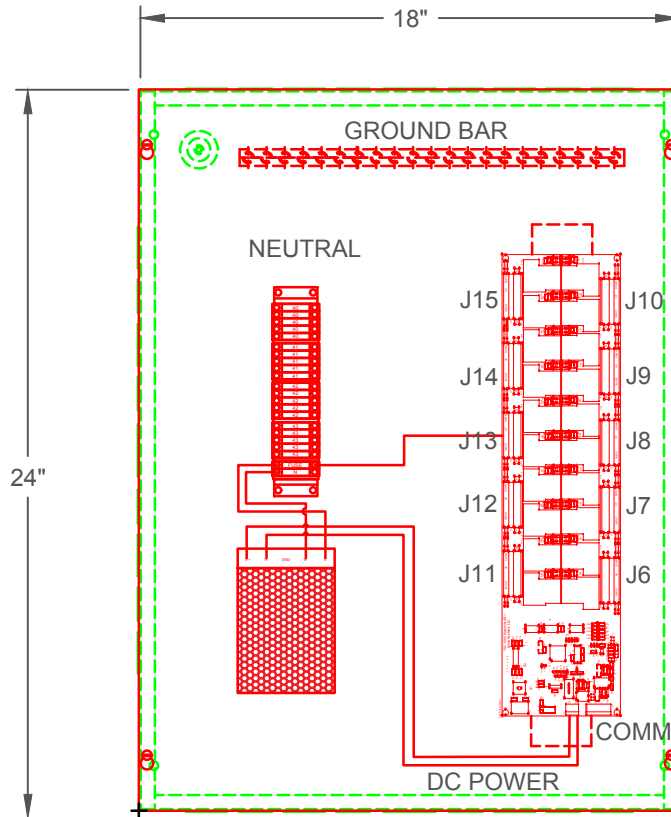


JUNCTION MOUNTING TABS MUST BE ORIENTED AS SHOWN FOR PROPER MOUNTING OF TOUCH PAD

STANDARD 4" x 4" x 2 1/2" DEEP JUNCTION BOX. REQUIRED AT EACH KEYPAD LOCATION. (SUPPLY BY OTHERS)

**ELECTRICAL REQUIREMENTS**

- 120VAC, 1PH, 60HZ,
- 20 AMP CIRCUIT(ONE CIRCUIT PER MOTOR)
- 30 AMP CIRCUIT(TWO MOTORS PER CIRCUIT)
- MAX OF 10 INDIVIDUAL INCOMING CIRCUITS PER BOX
- RECOMMENDED ALL DEVICES BE ON THEIR OWN DEDICATED CIRCUIT.
- ALL TERMINALS ACCEPT UP TO 10 AWG WIRE.



**RELAY NODE**

LOCATE KEYPAD ON WALL AT A CONVENIENT HEIGHT FOR AUTHORIZED USERS.

ALL RELAY NODES SHOULD BE MOUNTED AT GROUND LEVEL FOR ACCESS TO THE MANUAL CONTROL OVERRIDE FEATURE.

AUTHORIZED USER MUST HAVE FULL VIEW OF GYMNASIUM EQUIPMENT AT ALL TIMES WHEN OPERATING.

ALL OTHER ELECTRICAL, JUNCTIONS AND SYNCHRONIZER BOXES ARE TO BE INSTALLED BY A CERTIFIED ELECTRICAL CONTRACTOR. FOLLOW ALL LOCAL CODES AND MANUFACTURER'S INSTRUCTIONS.

**NOTE: THIS DRAWING IS FOR REFERENCE ONLY. REFER TO THE TSC INSTALLATION WIRING INSTRUCTIONS INCLUDED IN THE SUBMITTAL PACKAGE FOR SPECIFIC WIRE TERMINATION INFORMATION.**

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REV.	DATE
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BY	MEV

9200 E. 146th St.  
Noblesville, IN 46060

Gared Holdings, LLC

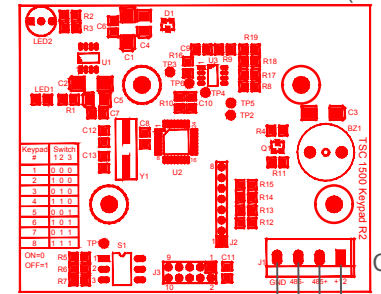
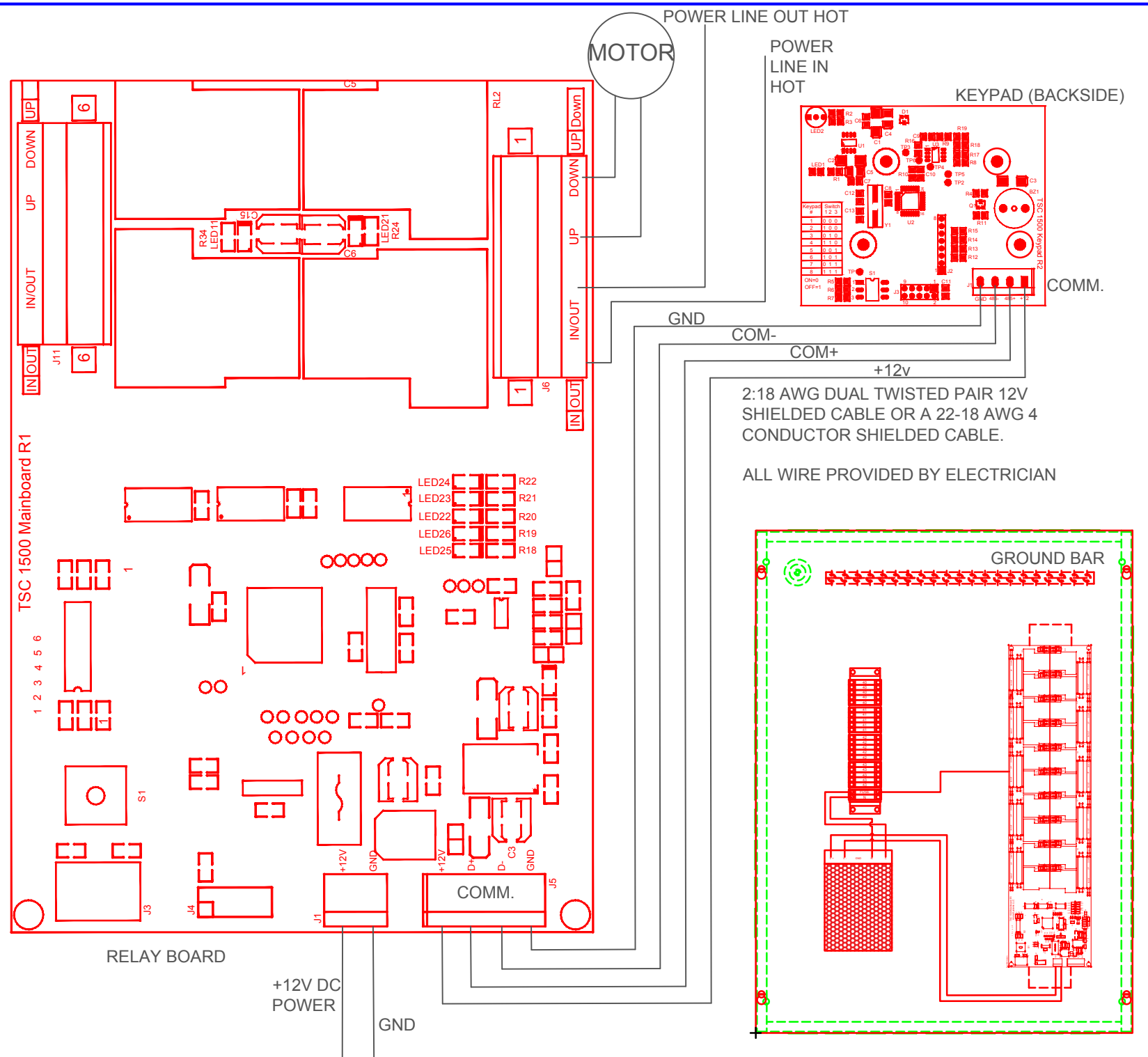
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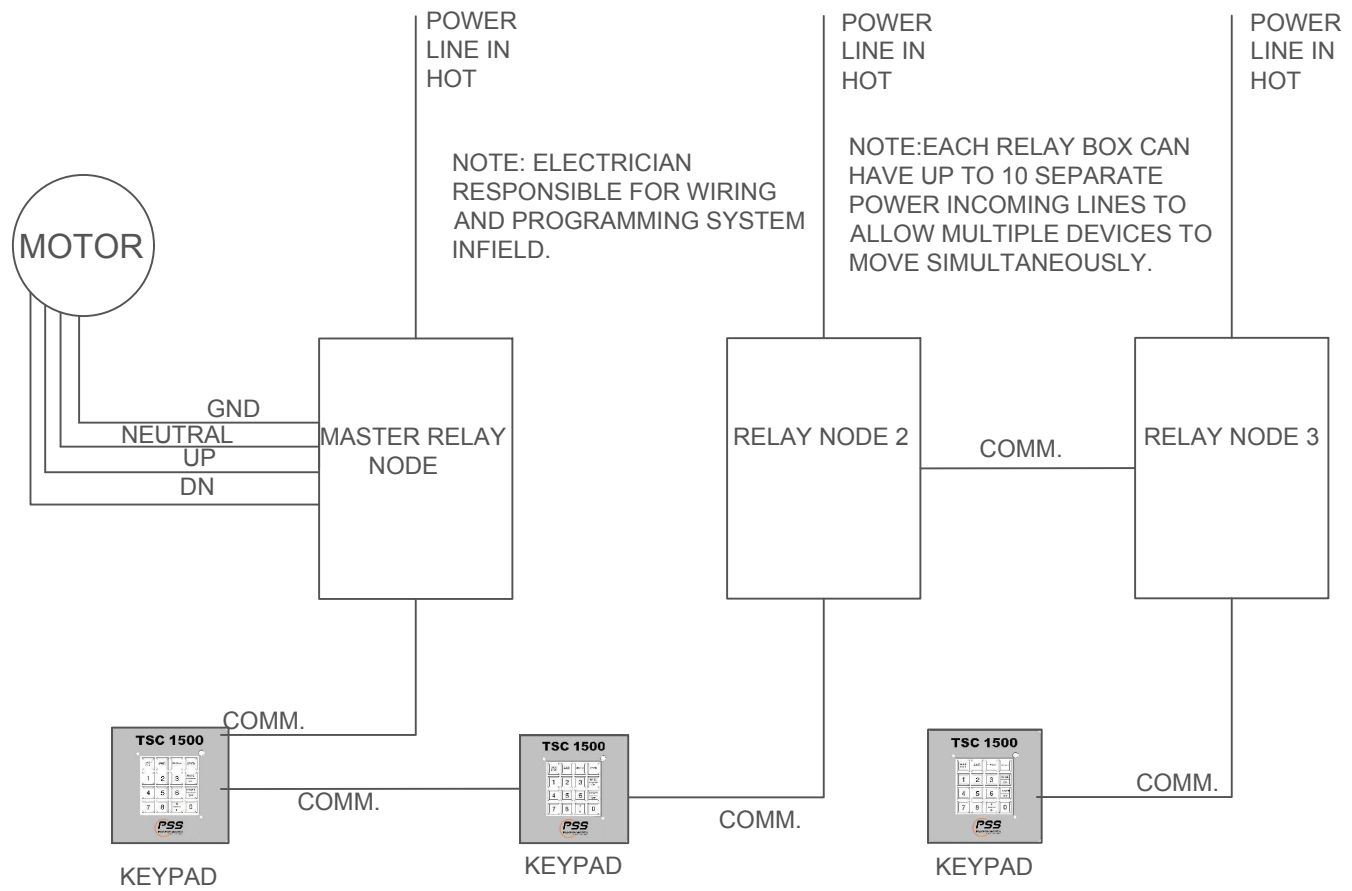
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POWER LINE IN HOT

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NOTE: ELECTRICIAN RESPONSIBLE FOR WIRING AND PROGRAMMING SYSTEM INFIELD.

NOTE: EACH RELAY BOX CAN HAVE UP TO 10 SEPARATE POWER INCOMING LINES TO ALLOW MULTIPLE DEVICES TO MOVE SIMULTANEOUSLY.

COMMUNICATIONS WIRE ALL 2:18AWG DUAL TWISTED PAIR 12V SHIELDED CABLE OR A 22-18 AWG 4 CONDUCTOR CABLE.

ALL WIRE PROVIDED BY ELECTRICIAN

**IMPORTANT: THE VOLTAGE PROVIDED MUST BE STABLE. IF UNSTABLE CAN CAUSE PROBLEMS WITH SYSTEM.**

NOTE: COMMUNICATION WIRE CAN ALL BE DAISY CHAINED ON SYSTEM TO PROVIDE A REDUCTION IN REQUIRED WIRE. HOWEVER A SECONDARY RELAY NODES CANNOT HAVE THE +12V CONNECTED TO THE CIRCUIT. ALL POWER FOR THE KEYPADS MUST COME FROM THE MASTER RELAY NODE TO AVOID BACK FEEDING THE MASTER NODE'S TRANSFORMER.

**ELECTRICAL REQUIREMENTS**

- 120VAC, 1PH, 60HZ,
- 20 AMP CIRCUIT (ONE CIRCUIT PER MOTOR)
- 30 AMP CIRCUIT (TWO MOTORS PER CIRCUIT)
- MAX OF 10 INDIVIDUAL INCOMING CIRCUITS PER BOX
- RECOMMENDED ALL DEVICES BE ON THEIR OWN DEDICATED CIRCUIT.
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