

****NOTICE****

All repairs should be performed by a certified technician.

Southern Pride of Texas® is not liable for any damages, or injury if you choose to attempt repairs on your own.

When dealing with high voltage, and moving drive systems there is a risk of extreme injury, or even **DEATH.**



SOUTHERN PRIDE OF TEXAS

TOMMY'S FOOD SERVICE

World Renowned BBQ Pits & Smokers

409-886-8626

Rotisserie Not Spinning

Diagnosis Procedure For Chain Drive Smokers

Pre-Test Checks

1. Check if red/green light on shock relay. If red you can do test/reset just like a home GFC outlet.
2. Check if your shock relay settings are configured correctly using settings located below.

MLR-150, SPX-300, SPK-500 Settings:

Start Time: 2.5
Shock Time: 1.0
Current: 1.5

SP-700, MLR-850, SPK-1000, SP-1000,

SPK-1400 Settings:

Start Time: 2.5
Shock Time: 1.0
Current: 5.5

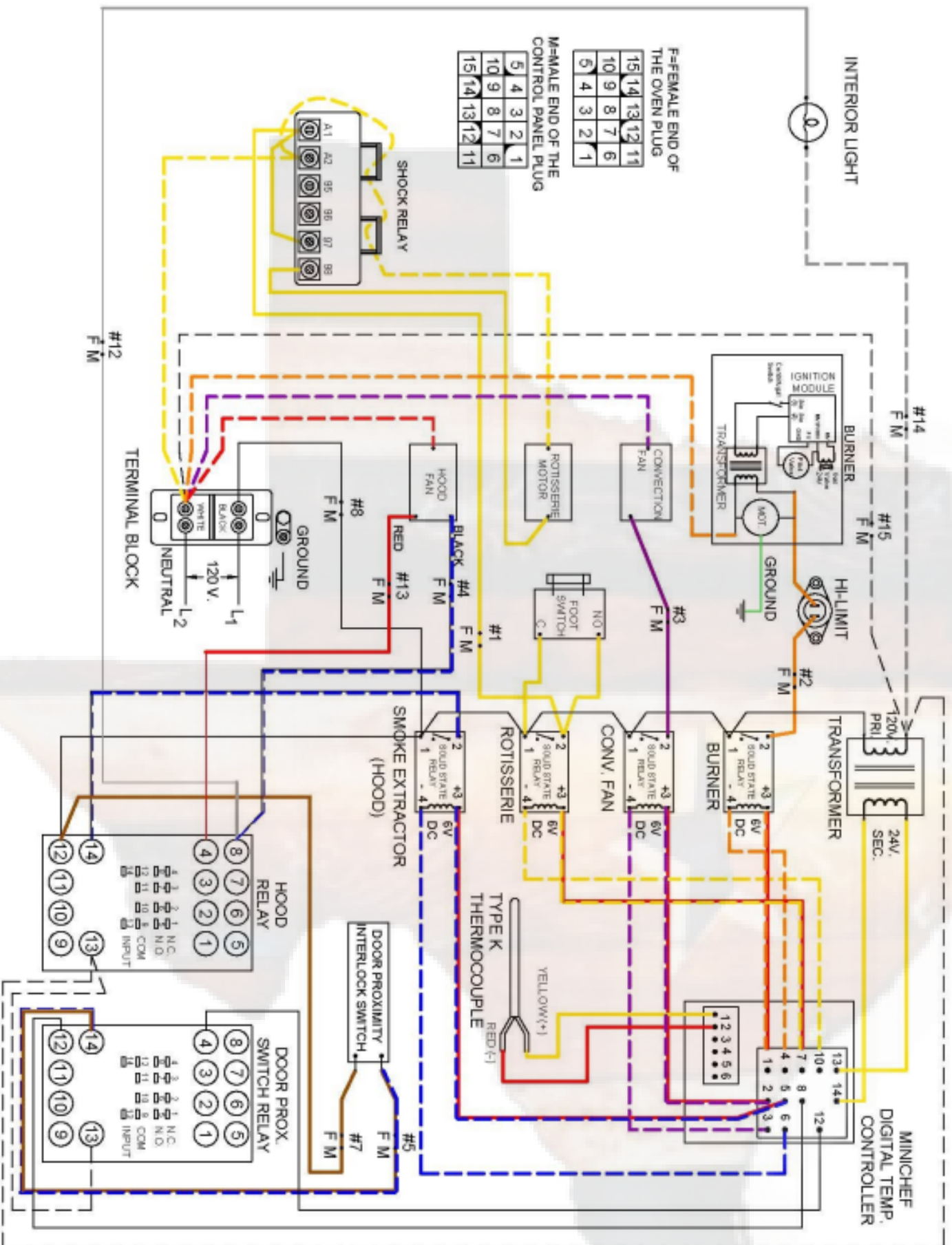


**Cook & Hold
Thermostat**



**CV
Thermostat**

GAS SMOKER WIRING DIAGRAM WITH DIGITAL COOK AND HOLD CONTROL



F-FEMALE END OF THE OVEN PLUG

15	14	13	12	11
10	9	8	7	6
5	4	3	2	1

M-MALE END OF THE CONTROL PANEL PLUG

5	4	3	2	1
10	9	8	7	6
15	14	13	12	11

Wire Color Code Legend			
---	White w/ Gray Stripe	---	White
---	White w/ Yellow Stripe	---	Yellow
---	White w/ Orange Stripe	---	Orange
---	White w/ Purple Stripe	---	Purple
---	White w/ Blue Stripe	---	Black
---	Red w/ Blue Stripe	---	Brown w/ Blue
---	Red w/ Purple	---	Black w/ Blue
---	Red w/ Yellow	---	Red w/ Purple
---		---	Red w/ Yellow
---		---	Brown
---		---	Grey
---		---	Green

REV 8

Cook & Hold Digital Thermostat



Do you have 120v AC across terminals A1 & A2 on your shock relay? (Older shock relays have L1 & L2)

No



Yes

Test the 10amp solid state relay behind the thermostat control panel (3rd Relay From Transformer)

Test Procedure:
With unit operating you should get 120v AC voltage across terminals 1 & 2, and 0v DC across terminals 3 & 4)
With unit paused you should get 0v AC across terminals 1 & 2, and 6v DC across terminals 3 & 4.

Did the relay test correctly?

No

Relay did not have 6v DC when unit was operating

1. Check that connections on relay are good.
2. Check that terminals 7 & 10 on red molex plug are good.
3. Test for 6v DC directly on terminals 7 & 10 on red molex plug

If no 6v DC from terminals 7 & 10 when unit should be rotating you have a faulty thermostat controller.

[Click here to order a replacement](#)

No

Test for 120v AC between terminals 98 and A2/L2 on the shock relay.

Do you have 120v across terminals 98 & A2/L2?

Yes

If you have 120v AC when you test across terminals A2/L2 & 98 then you either have a faulty gearmotor, or a faulty brake.

You can disengage the brake by flipping the lever on the back of the brake away from the meat compartment of the smoker.

Test rotisserie again. If rotisserie works then you likely just have a faulty brake.

[Click here to order a replacement brake](#)

If the rotisserie still does not work then you likely have a faulty gearmotor.

[Click here to order a replacement gearmotor](#)

No

If relay tested correctly then you can test terminal 2 of the relay to case ground (touch negative lead anywhere on the case of the smoker) to verify you have 120v AC coming out of the relay going to the shock relay.

Now test across terminals A1 & A1 (L1 & L2 on older shocker relays). You should have 120v. If you don't then you have a broken wire between the shock relay, and the 10amp relay.

Relay has 6v DC on terminals 3 & 4, but still keeps AC voltage on terminals 1 & 2 while in operation.

Relay is stuck closed.

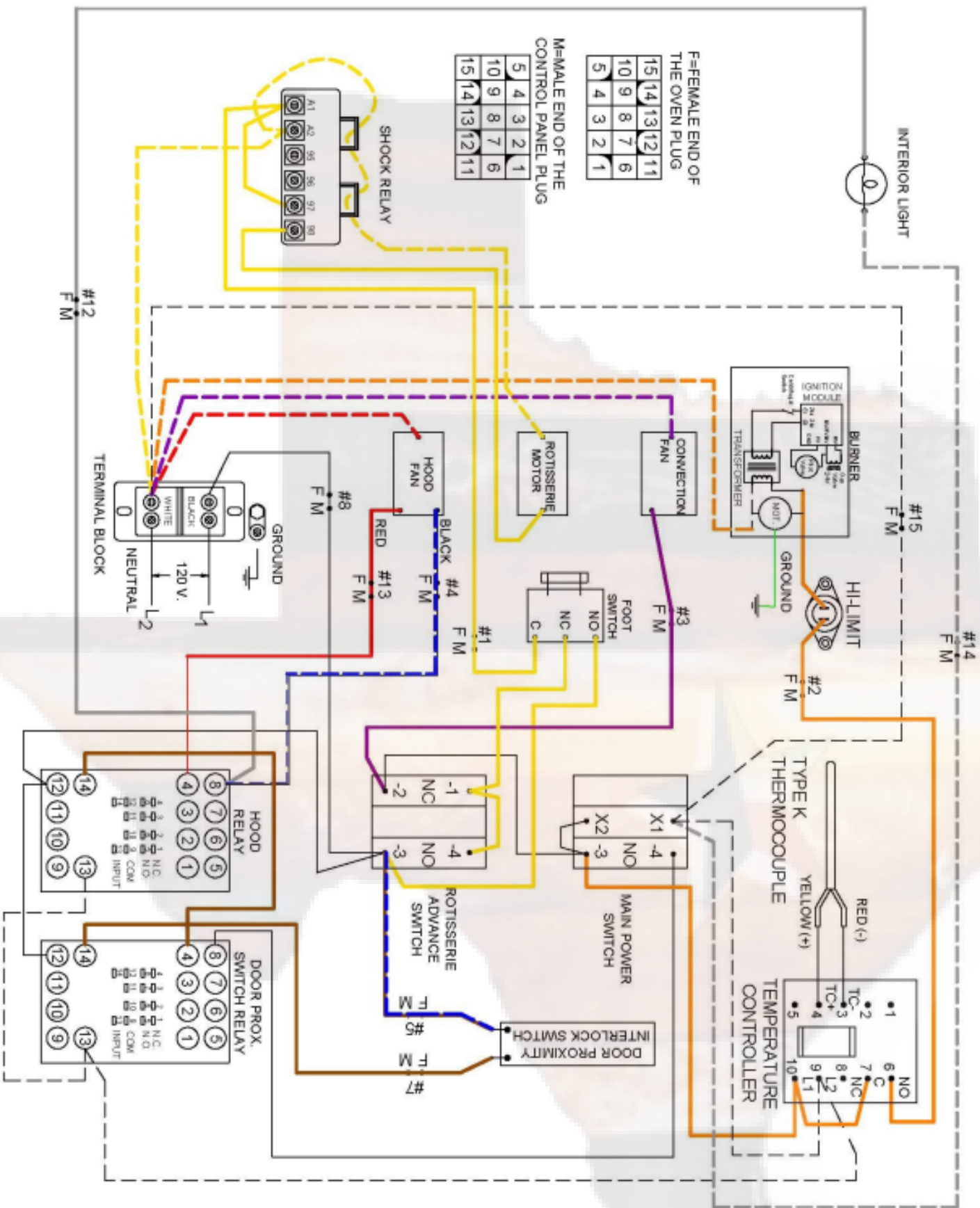
Replace relay.

[Click here to order a replacement](#)

If you do not have 120v across terminals 98 and A2/L2, but you have 120v across A1/L1 & A2/L2 then you have a faulty shock relay.

[Click here to order a replacement](#)

GAS SMOKER WIRING DIAGRAM WITH STANDARD CONTROL

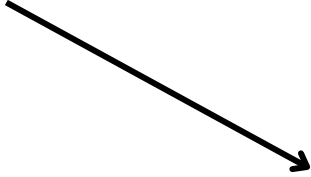


Wire Color Code Legend					
---	White w/ Gray Stripe	---	White	---	Brown
---	White w/ Yellow Stripe	---	Yellow	---	Grey
---	White w/ Orange Stripe	---	Orange	---	Green
---	White w/ Purple Stripe	---	Purple	---	
---	White w/ Red	---	Black	---	
---	Black w/ Blue	---	Brown w/ Blue		

REV 4



CV Digital Thermostat



Check for 120v AC in and out of terminal 1 on the NC block on the rotisserie advance switch.
Do you have 120v coming out of terminal 1 to case ground on the NC block?

No

If no power out of the NC block terminal 1 then replace the rotisserie advance switch.
[Click here to order a replacement](#)



Yes

Check for 120v AC on the NC terminal to case ground, and also the C terminal to case ground.
If there is no 120v on the C terminal then replace the foot pedal vacuum switch.
[Click here to order a replacement](#)
If there is 120v on C terminal then check for 120v again on terminal A1/L1 to case ground on the shock relay. If 120v on C, but no 120v on terminal A1/L1 on the shock relay you may have a broken wire

No
Do you have 120v AC across terminals A1 & A2 on your shock relay?
(Older shock relays have L1 & L2)



Yes

Test for 120v AC between terminals 98 and A2/L2 on the shock relay.
Do you have 120v across terminals 98 & A2/L2?



Yes

If you have 120v AC when you test across terminals A2/L2 & 98 then you either have a faulty gearmotor, or a faulty brake.
You can disengage the brake by flipping the lever on the back of the brake away from the meat compartment of the smoker.
Test rotisserie again. If rotisserie works then you likely just have a faulty brake.
[Click here to order a replacement brake](#)
If the rotisserie still does not work then you likely have a faulty gearmotor.
[Click here to order a replacement gearmotor](#)

No

If you do not have 120v across terminals 98 and A2/L2, but you have 120v across A1/L1 & A2/L2 then you have a faulty shock relay.
[Click here to order a replacement](#)