



Single Burner Supervision, Manual Pushbutton Ignition,
Plug-in SS100A FLAME -PAK, Plug-in Control Relays

Power on PROTECTOFIER terminals L1 and L2 provides power to electronic network.

Terminal L1 must be powered before terminal 12.

Power on PROTECTOFIER terminal 12 (thru permissive safety limits circuit) permits manual pushbutton ignition.

1. Press and hold "START" pilot pushbutton.
 - a. "ACF" CHECK relay "C" is energized thru N.C. contact of "ACF" FLAME relay "F".
 - b. Ignition transformer is energized thru contact of "START" button (from PROTECTOFIER terminal 4) to provide spark ignition to the pilot.
 - c. Pilot solenoid valve is energized to open (from PROTECTOFIER terminal 4).
2. With pilot flame established "ACF" FLAME relay "F" is energized.
 - a. FLAME relay "F" contacts transfer.
 - 1) N.C. "F" contact in safe-start checking circuit opens.
 - 2) N.O. "F" contact between terminal 12 and terminal 13 closes providing holding circuit around "START" pilot push-button contact.

3) N.O. "F" contact in main valve circuit closes to energize main valve (thru N.O. CHECK relay "C" contact). Neon indicator light on PROTECTOFIER chassis will glow to indicate flame is established.

3. Release "START" button. Ignition transformer is de-energized.

Flame failure during operation de-energizes fuel valves.

Power interruption to PROTECTOFIER terminal 12 de-energizes relays and fuel valves.

Failure of Check Relay "C" to prove safe-start check will prevent energizing fuel valves and ignition system.



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INSTALLATION, OPERATION AND MAINTENANCE SHALL CONFORM WITH NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS, NATIONAL AND LOCAL CODES, AND AUTHORITIES HAVING JURISDICTION. ANY MODIFICATION VOIDS APPROVALS.

PROTECTOFIER

MANUAL OPERATION

SS100A FLAME PAK

ACF { C-CHECK RELAY
F-FLAME RELAY

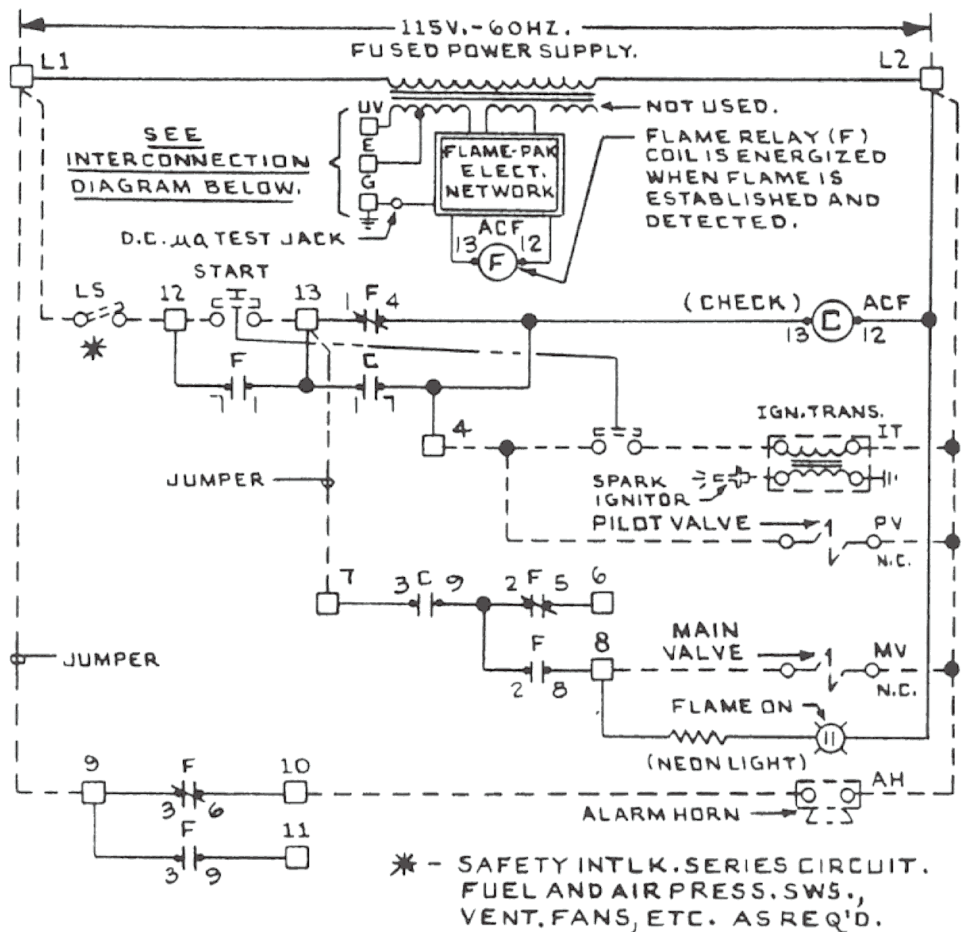
SINGLE BURNER
PROTECTOFIER
(FORM 6642 VA
GROUP M2101.)



NO CONNECTION.

□ — INTERNAL WIRING.
- - - EXTERNAL WIRING.

WIRING DIAGRAM



* - SAFETY INTLK. SERIES CIRCUIT.
FUEL AND AIR PRESS. SWS.,
VENT. FANS, ETC. AS REQ'D.

SINGLE BURNER
PROTECTOFIER
(FORM 6642 VA
GROUP M2101.)

NOTES:

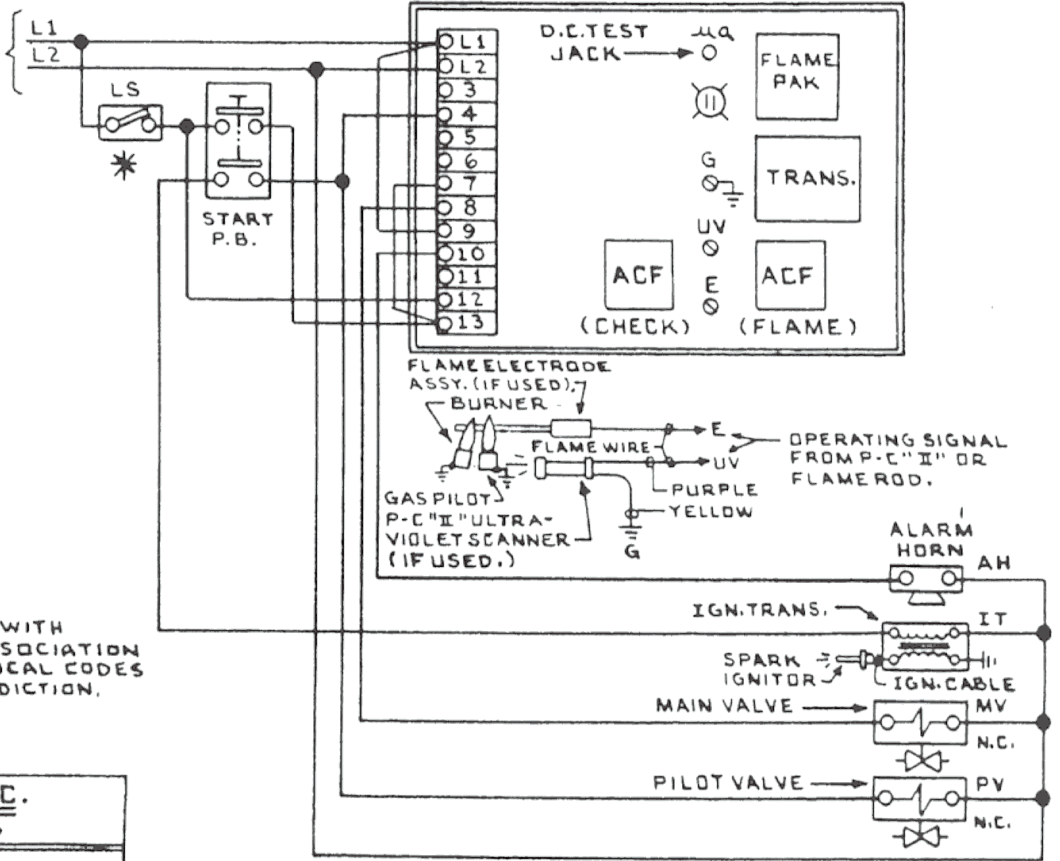
FLAME WIRE TO BE NO. 14 TYPE
TW. 600V. INSULATED WIRE OR
EQUAL. FLAME WIRE MUST NOT
BE IN SAME CONDUITS WITH
POWER WIRING.

IGNITION CABLE MUST BE RUN
IN SEPARATE CONDUIT TO SPARK
ELECTRODE. (DO NOT MIX WITH
115V. WIRING.)

WIRING AND INSTALLATION TO
CONFORM WITH NATIONAL AND
LOCAL ELECTRICAL CODES.
ALL WIRING AND EQUIPMENT
EXTERNAL TO PROTECTOFIER
TO BE FURNISHED BY OTHERS
UNLESS OTHERWISE SPECIFIED.

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MAINTENANCE SHALL CONFORM WITH
NATIONAL FIRE PROTECTION ASSOCIATION
STANDARDS, NATIONAL AND LOCAL CODES
AND AUTHORITIES HAVING JURISDICTION.

115V., 60HZ.
FUSED
POWER
SUPPLY.



INTERCONNECTION DIAGRAM

PROTECTION CONTROLS, INC.
SKOKIE, ILLINOIS

WIRING DIAGRAM FOR:
PROTECTOFIER FORM 6642 VA GROUP M2101

JOB NO.	DRWN. BY	DATE	DRAWING NO.
	H.R.V.	5-30-79	X-235

REVISED AND REDRAWN. REV. 9-30-81