

TECHNICAL NOTE

**TRUE ADVANCED PURGE™ MODEL TAP-G3
RECENT ISSUES AND RESOLUTIONS**

As part of our program of continuous improvement, **UNITED Fire Systems** has implemented improvements to the **TRUE ADVANCED PURGE™ Model TAP-G3** device in response to several issues.



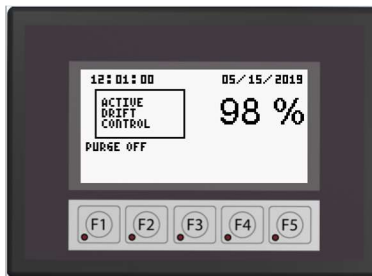
1. UNWANTED FAULT SIGNALS

Issue – During the nightly automatic drift control (ADC™) procedure, users monitoring the **Model TAP-G3** fault contacts with a BMS or fire alarm system were receiving fault signals considered a nuisance when there was no actual fault.

Resolution – **UNITED Fire Systems** has updated the **Model TAP-G3** firmware to disable operation of fault contacts K1 and K2 during ADC™. Normal operation of the contacts is re-enabled after the automatic procedure is complete. The following table appears in Manual P/N 33-TG3MAN-000 Revision 1.01 on Page 9.

START TIME	END TIME	FUNCTION BUTTONS	PURITY DISPLAY	FAULT CONTACTS	SCREEN FLASHING	MODE DISPLAY	DEVICE OPERATION
12:00:00	12:49:59	Disabled	Enabled	Disabled	Disabled	NORMAL or PURGE	Sensor returning to atmospheric purity
12:50:00	12:59:59	Disabled	Disabled	Disabled	Disabled	ACTIVE DRIFT CONTROL™	Drift being evaluated
01:00:00	01:04:59	Disabled	Disabled	Disabled	Disabled	N2 PURITY SAMPLING	Sprinkler system being sampled
01:05:00	01:09:59	Disabled	Enabled	Disabled	Disabled	NORMAL or PURGE	Drift control being enabled
01:10:00		Enabled	Enabled	Enabled	Enabled	NORMAL or PURGE	Device returns to previous mode

Model TAP-G3 devices manufactured on and after 11 Mar 2024 will be factory-programmed with this updated firmware. Devices manufactured before that date can be field-updated by **UNITED Fire Systems** for users requiring this feature. Contact **UNITED Fire Systems** for service.



**Model TAP-G3 Display Screen
Shown In ACTIVE DRIFT CONTROL™ Mode**

UNITED Fire Systems

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2. DEBRIS IN SENSOR CHAMBER

Issue – Installers have observed on occasion that debris has entered the sensor chamber of some **Model TAP-G3** devices. **UNITED Fire Systems** believes such debris entered the devices during installation. While the debris at this time has not resulted in inaccurate nitrogen purity readings or premature sensor failure, **UNITED Fire Systems** believes the entry of debris should be prevented.

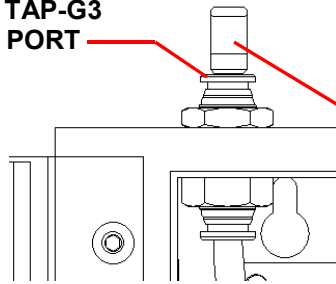
Resolution 1 – To avoid debris entry directly into the **Model TAP-G3** inlet port, **UNITED Fire Systems** now installs a plug into the port at the time of assembly.



IMPORTANT

Keep the factory-installed plug in the port throughout and after the installation process. Remove the plug only immediately before attaching the sampling tubing to the port. Discard the plug after removal.

MODEL TAP-G3
INLET PORT



PLUG – REMOVE JUST PRIOR TO
ATTACHMENT OF TUBING

Resolution 2 – To avoid debris entry into sampling tubing during installation, **UNITED Fire Systems** now attaches caps to each end of the tubing at the factory.



IMPORTANT

Keep the factory-attached caps on the tubing ends throughout and after the installation process. Remove the caps only immediately before attaching the tubing as needed. Discard the caps after removal.

REMOVE CAPS
JUST PRIOR
TO INSTALLATION



LENGTH OF
SAMPLING
TUBING

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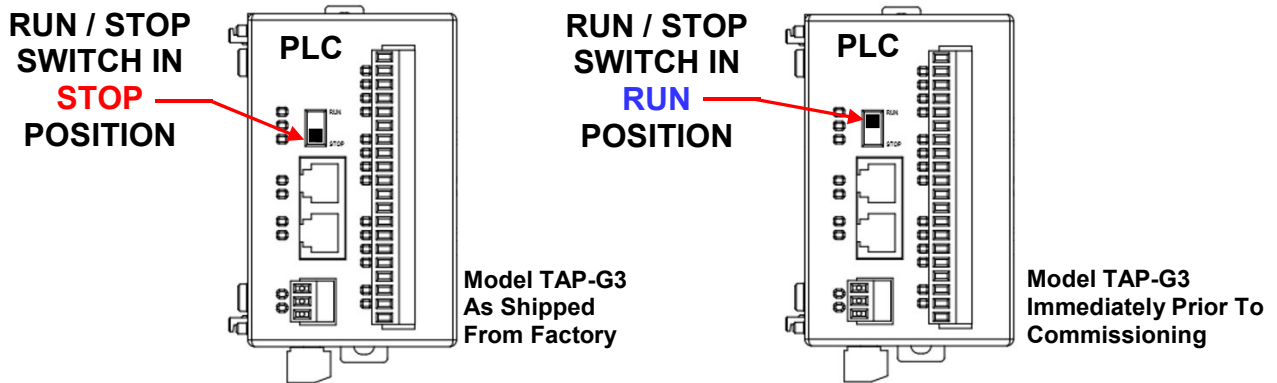
3. HMI SCREEN BURN-IN

Issue – Several users have observed that their **Model TAP-G3** HMI (Human-Machine Interface) screen has turned a pinkish hue. **UNITED Fire Systems** has determined that this phenomenon occurs when the **RED** flashing of the screen during a fault has been allowed to continue for a very extended period of time.



Resolution 1 – Up to now, connecting live 115 VAC power to the **Model TAP-G3** device far in advance of commissioning has resulted in **RED** flashing for a long period. To prevent this flashing, **UNITED Fire Systems** is now leaving the PLC (Programmable Logic Controller) in **STOP** mode after factory testing.

Place the PLC **RUN / STOP** switch into the **RUN** position **ONLY** immediately prior to commissioning.



Resolution 2 – **UNITED Fire Systems** has updated the **Model TAP-G3** firmware to disable operation of screen flashing during ADC™. Normal operation of screen flashing is re-enabled after the automatic procedure is complete. The following table appears in Manual P/N 33-TG3MAN-000 Revision 1.01 on Page 9.

START TIME	END TIME	FUNCTION BUTTONS	PURITY DISPLAY	FAULT CONTACTS	SCREEN FLASHING	MODE DISPLAY	DEVICE OPERATION
12:00:00	12:49:59	Disabled	Enabled	Disabled	Disabled	NORMAL or PURGE	Sensor returning to atmospheric purity
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01:00:00	01:04:59	Disabled	Disabled	Disabled	Disabled	N2 PURITY SAMPLING	Sprinkler system being sampled
01:05:00	01:09:59	Disabled	Enabled	Disabled	Disabled	NORMAL or PURGE	Drift control being enabled
01:10:00		Enabled	Enabled	Enabled	Enabled	NORMAL or PURGE	Device returns to previous mode

Please contact **UNITED Fire Systems** with any questions about this Technical Note, or to request service on your **Model TAP-G3** device. Thank you.