

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.



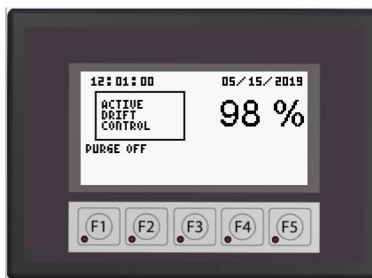
1. UNWANTED FAULT SIGNALS

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**

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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.

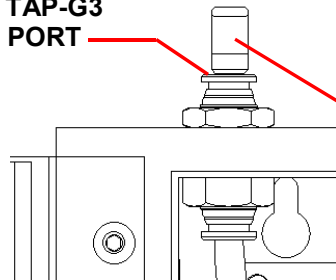
Resolution 1 – To avoid debris entry directly into the **Model TAP-G3** inlet port, **UNITED Fire Systems** now installs a plug into the port at the time of assembly.



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 2.1 – 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.

Resolution 2.2 – Debris can enter cut tubing ends during installation. Prior to installation, and after cutting tubing to length, protect the tubing ends from debris entry by applying a suitable adhesive tape. Electrical tape is one example of a suitable protective tape.



IMPORTANT

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

Resolution 3 – **UNITED Fire Systems** now provides an in-line air filter to reduce contamination of the **TAP** device from debris in the tubing line. Refer to Technical Note **UFS-25-01** for additional information.

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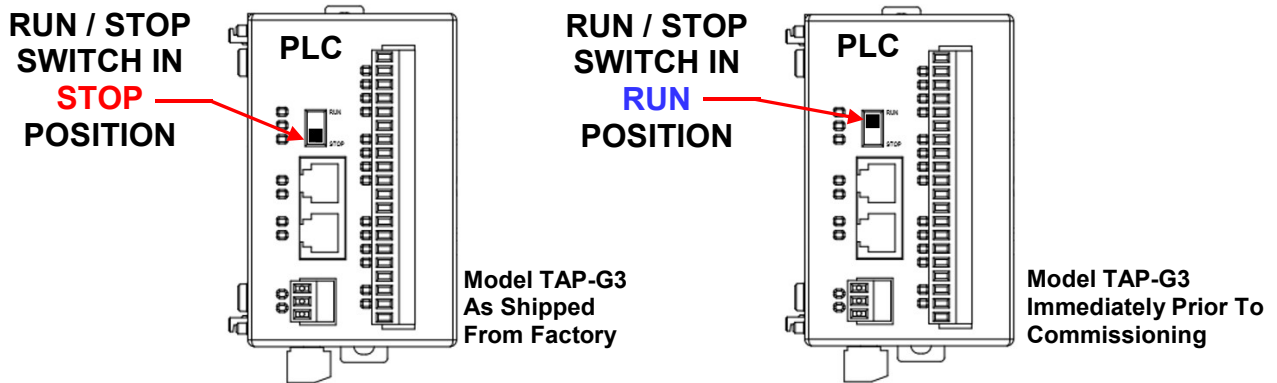
3. HMI SCREEN BURN-IN

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
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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.