

SUBJECT: Improving Synchrony for Spontaneously Breathing Patients With ATC and DuoFlow^{PLUS} on the Newport E100M Ventilator

A patient that receives synchronized breathing assistance is more comfortable, requires less sedation, and is likely to be liberated from the ventilator more quickly.

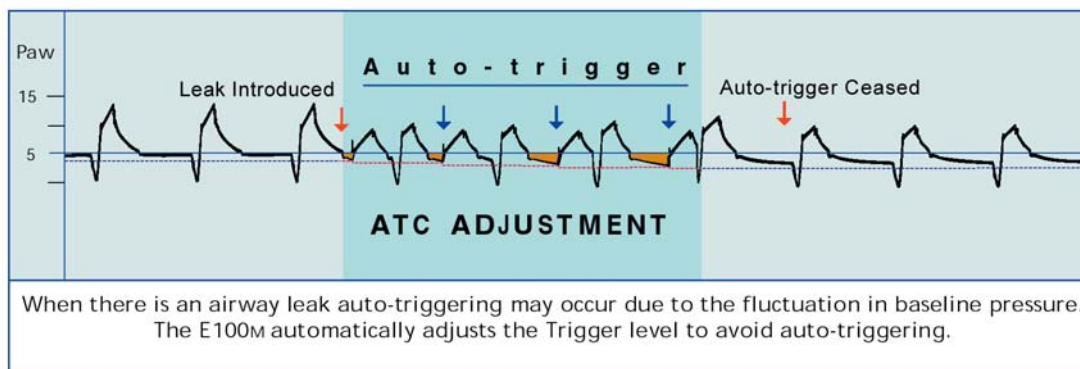
Advanced Trigger Control (ATC)

The *Trigger* setting determines the timeliness of a ventilator's response to patient breathing effort. Optimizing the *Trigger* setting enables the ventilator to synchronize initiation of breathing assistance with patient breathing efforts.

Optimizing the *Trigger* setting may be difficult and/or too time consuming to manage for the bedside clinician when frequent changes in (endo) tracheal tube/breathing circuit leaks cause frequent changes in baseline (PEEP) pressure and therefore cause a need for frequent *Trigger* re-adjustment.

The E100M is the first ventilator to offer a solution to this dilemma with its unprecedented Advanced Trigger Control (ATC) feature.

When activated, Advanced Trigger Control (ATC) continually manages the patient's trigger sensitivity so that it is easy for the patient to trigger the ventilator but not likely that the ventilator will trigger without patient effort.



The clinician can enable ATC to provide optimized Trigger settings, even when they cannot be at the bedside. ATC can simplify ventilator set-up, lower imposed work caused by missed or delayed triggers and improve patient/ventilator synchrony.

DuoFlow^{PLUS}

DuoFlow^{PLUS} (DuoFlow plus Time-Limited Demand Flow) allows you to minimize imposed work and improve patient/ventilator synchrony through an improved spontaneous breathing system while still benefiting from the E100M's simplicity of design, ease of use and low cost.

With the DuoFlow^{PLUS} system, the user sets two different flowrates: mandatory flow and spontaneous flow. Mandatory flow is delivered during all mandatory breaths and when Time-Limited Demand Flow is enabled, it is also delivered at the beginning of each spontaneous breath. The rest of the time the spontaneous flow is delivered. With mandatory flow available for the patient at the beginning of each spontaneous breath, the spontaneous flow can be set much lower. The patient's peak flow needs are met by the mandatory flow. And the lower spontaneous flow minimizes exhalation valve resistance. The lower spontaneous flow may also make it easier for the patient to trigger. And it has a "safety net" built-in. The open-circuit system allows the patient to exhale or inhale at any time in between mandatory breaths – even in the middle of a Time-Limited Demand Flow supported breath.

Summary

The E100M Ventilator's Advanced Trigger Control and DuoFlow^{PLUS} features make it easy to improve patient/ventilator synchrony while lowering ventilator imposed work on spontaneously breathing patients.