

(51) International Patent Classification:
B01D 35/30 (2006.01) **B01D 27/08** (2006.01)(21) International Application Number:
PCT/US2009/050615(22) International Filing Date:
15 July 2009 (15.07.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/188,816 8 August 2008 (08.08.2008) US(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 12/188,816 (CON)
Filed on 8 August 2008 (08.08.2008)(71) Applicant (for all designated States except US): **KX TECHNOLOGIES LLC** [US/US]; 269 South Lambert Road, Orange, CT 06477 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HUDA, Stephen, P.** [US/US]; 55 Wakely Street, Shelton, CT 06484 (US). **HAEHN, Steven, J.** [US/US]; 7491 31st Street, Place N., Oakdale, MN 55128 (US). **SHERMAN, Michael, J.** [US/US]; 3278 Charleston Drive, Woodbury, MN 55129 (US).(74) Agents: **DELIO, Anthony, P.** et al.; Delio & Peterson, LLC, 121 Whitney Avenue, New Haven, CT 06510 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

[Continued on next page]

(54) Title: PUSH FILTER WITH FLOATING KEY LOCK

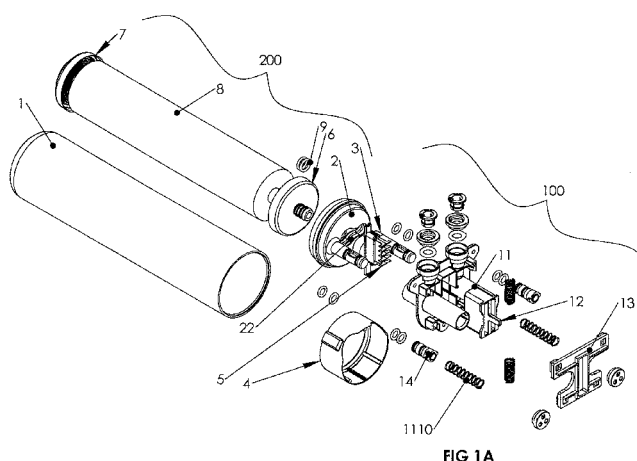


FIG 1A

(57) Abstract: A filter assembly for fluid filtration having a push-activated lock and release mechanism. A push filter design activates a floating key lock upon insertion and extraction, where the filter key may be used simultaneously as a lock and as an identifier for particular filter attributes. The filter base may be situated inline, and in fluid communication, with influent and effluent piping, such as within a refrigerator. The filter housing assembly may be attached to, and removed from, the filter base by a push-activated release. Upon insertion, the filter key shifts the filter lock longitudinally to receive interlocking segments. Upon extraction, the same axial push shifts the filter lock further to align the interlocking fingers within gaps that allow for easy extraction. The specific key lock design allows a user to identify and match certain filter configurations received by the mechanical support, and reject other filter configurations.

**Published:****(88) Date of publication of the international search report:**

8 April 2010

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*