

Question 1:

Misappropriation of trade secrets, patent infringement and copyright infringement can all be asserted against ET.

I. Misappropriation of trade secrets.

Barring any statutes of limitation, IP could probably bring a claim against ET for misappropriating trade secrets when ET began reverse engineering the product in September, 2010, thus getting a “head-start” on reverse engineering before the AUTOTUNE was released in November. To prove misappropriation of trade secrets, IP will need to show that 1) he had a valid trade secret 2) that was the object of reasonable efforts to maintain its secrecy and 3) that the secret was misappropriated by ET.

The AUTOTUNE device and its software were probably trade secrets before the device was sold on the open market on November 1, 2010. Under UTSA §1(4), they are “information, including . . . program[s] or device[s].” Both derive “actual or potential” independent economic value from not being generally known or ascertainable because it gives IP a head-start on the market as he tries to sell the device. Since the device was new, it is probably not generally known to or readily ascertainable by other persons who can obtain economic value from its disclosure or use. The Restatement of Torts §757 factors also support finding of a trade secret: assuming professional musicians didn’t already use devices like the AUTOTUNE in secret, the device was not known by anyone other than IP and the alleged misappropriator. There is no one else involved in IP’s business and the value of the device to IP was probably high because it is the crux of his business. Furthermore, IP spent considerable effort and research in writing the software and creating the device. Finally, until IP sold the AUTOTUNE on the open market it would be relatively difficult for someone to properly acquire the device; duplication would also be difficult because it took a programmer over 3 months to replicate the device even when he had the working prototype to study and he could not even completely duplicate the device without copying its software.

ET will probably argue that the device was not truly a trade secret because the principles of guitar tuning, automatic guitar knob turners, and sound digitizers/recorders are already known in the industry. However, just because the principles involved are generally known, it doesn't disqualify IP's specific modifications (which are not generally known) from being a trade secret. Fourtek. Fourtek further supports finding of a trade secret because IP's statement "[p]lease don't give this tuner to anyone else or even tell anyone else about this automatic tuner," shows that he subjectively believed he had a valuable secret. ET will also argue that IP's trade secrets were destroyed when IP publicly disclosed the secret by either announcing it on facebook or giving the product that embodies the trade secret to a musician who IP knows plays in public. First, the statement on facebook is probably not a disclosure because the statement was vague and does not reveal the actual secret method of tuning that was developed. Even assuming the statement was a disclosure, it was probably a limited disclosure because the number of people disclosed to was limited to IP's friends on facebook, IP had legitimate economic interests in soliciting offers for his product, and although confidential relationships strengthen the evidence of a limited disclosure, such relationships aren't required. Fourtek. The same factors support the finding that IP did not publicly disclose his secrets by giving a prototype to ET: the disclosure was limited to ET, IP had legitimate economic interests in having a musician test the device, and there was a confidential relationship both explicitly (by IP's request) and implicitly (because of the close familial relationship). Furthermore, even if ET's playing in public with the device destroys the secret, ET would still be liable to IP even if IP lost the secret vis-à-vis the rest of the world.

However, the trade secret must also be the object of reasonable efforts to maintain secrecy. UTSA §1(4)(ii). The reasonable of the efforts is a very fact and industry specific question for a jury. Rockwell. ET will argue that the efforts were not reasonable because IP didn't require any non-disclosure agreements and IP gave the device away when ET didn't actually agree to keep it secret. While it's true that IP didn't expend any money or efforts on security or maintaining secrecy, he only

made 2 prototypes, did not disclose how the device worked to anyone and kept the source code secret. Furthermore, soliciting sales of a product before it is released to the market is probably reasonable. The cost of usual secrecy precautions would probably be prohibitive for an enthusiast/amateur inventor for little benefit (especially because amateur inventors are probably not targets of corporate espionage). A jury could find that IP's efforts were reasonable under the circumstances.

Finally, IP must show that ET misappropriated the trade secret by improper means or breach of confidence. Although, the commercial world is held to higher moral and ethical standards, E. I. duPont, ET probably did not use improper means because he obtained the product with IP's knowledge and used reverse engineering to learn the secrets. Furthermore, under R.3d of Unfair Competition, it is questionable whether ET made an "express promise of confidentiality" prior to IP giving him a prototype because IP's statement may have been a request, not a condition of disclosure, and ET saying "Whatever" might not be agreement. However, there was probably an implied confidential relationship because ET should have known that the disclosure was intended to be in confidence and it was reasonable that IP would infer ET consented to an obligation of confidentiality, especially because they are related. Dravo Corp. ET knew that IP was planning to sell the AUTOTUNE and he breached their relationship by reverse engineering the device and gaining a two month head start on the "reverse-engineering" race, thereby diminishing IP's lead time. Cf. Seeley.

II. Patent Infringement.

To prove patent infringement, IP must show 1) he owns a valid patent and 2) ET infringed such patent.

ET's best defense in a patent infringement case will be to attack the validity of the IP's patent. To be a valid patent, IP's invention must be 1) patentable subject matter, 2) useful, 3) disclosed, 4) novel, and 5) nonobvious. The AUTOTUNE is properly patentable because it is obviously a "machine. . .

or any useful improvement thereof” under the patent act. §101. Even if there was doubt, these terms are read broadly by courts. cf. Bilski, Chakrabarty. The device is not an abstract idea but a specific application of an idea.

Furthermore, the AUTOTUNE has specific and substantial utility because it is used to tune guitars and has real-world application. contra Brenner, In re Fisher. The usefulness is tied to its novelty because guitarists can now have their strings tuned without touching the tuning knobs. The utility is also credible because a PHOSITA would believe that this invention is capable of what it claims. And the device has operability because use of both prototypes shows that it works. Moral utility is easily satisfied in this case because easier way to do menial tasks is a positive social benefit. Juicy Whip.

To be properly disclosed, IP’s invention must be enabled and described. The AUTOTUNER is probably enabled because a PHOSITA would be able to make the invention without undue experimentation. The recording and digitizing component and the peg turning components are readily available on the market and a person in the musical arts would probably be aware of them. The peg turning component could probably be easily modified to receive signals from the software because many mechanical devices interact with digital signals in modern technology. The computer software probably requires a standard amount of experimentation inherent in the computer software field: The patent presents guidance about what the software is supposed to do; There are probably working examples of software for comparing sounds; Software developers probably have a high amount of skill in the art; And computer software and musical tuning seem like predictable arts and the claim is very narrow. Although software can be written in numerous ways, the patent outlines the general qualities which make the software suitable. cf. Incandescent Lamp Patent. Because IP is not seeking to patent his specific software, what IP “brought to the table” was the specific combination of components claimed in his patent. The invention is probably also described because the written description conveys

with reasonable clarity that IP was in possession of what he claims as his invention. The written description matches the claim almost exactly. cf. Gentry Gallery.

Novelty requires that IP was the first to invent the AUTOTUNE and that his patent application was timely filed. §102(a), (b). The critical date of invention was July 1, 2010. ET's programmer did not complete his device until Dec. 1, 2010. Although some elements of the invention existed in the prior art, because no one prior art reference included all elements of IP's claim, his invention was not anticipated. There is no evidence that others used or knew of the AUTOTUNE before Dec. 1, 2010.

As for the statutory bars, the critical date is September 7, 2010 because IP applied for a patent on September 7, 2011. IP's facebook post on August 1, 2010 was not a printed publication because it did not enable the invention. Although the invention was "ready of patenting", the posting would also not be an offer of sale because the posting does not rise to the level of a commercial offer under the UCC and is probably just market research or an invitation for others to make offers. Group One, Ltd. ET's use of the device on stage on September 15, 2010 and beyond could arguably be a public use but that was after the critical date and would not bar patentability.

The AUTOTUNE's novelty largely depends on whether ET's use of the invention between September 1 and September 7, 2010 was a "public use . . . in this country." §102(b). The use would probably not be considered public in this case. "Public use" may be as broad as "non-secret use" but secret use is exactly how ET used the invention. He used it backstage, which is presumably not open to the public, and the facts don't reveal that any other person saw the use. Furthermore, ET was using the invention in order to test it and see if it worked. ET was also under either an express (from IP's request) or implied (from their relationship) duty of secrecy when he was given the invention. Furthermore, IP gave ET the invention for personal reasons and not for economic or commercial gain. For these same reasons, IP's private use of the invention from July 1 to August 1, 2010 was also probably a private use;

Especially because the use was even more secret by being used in IP's home and because he was the only one who knew of his invention.

As for obviousness, the scope of the prior art to be considered is everything logically related to the invention existing before the invention date of July 1, 2010. The prior art would thus include the automatic knob turners and recording equipment to convert a guitar string's sound into digitized format. The differences between the prior art and the claim at issue is the combination of these items, the computer software, and the modifications to the items so that they can interact with the software. The level of ordinary skill in the art will be determined by information about the art that is not available here; additionally, a person of ordinary skill has ordinary creativity. KSR. The AUTOTUNE is probably not obvious because a PHOSITA would not think to combine these items in this manner to solve the problem of guitar tuning. The computer software to compare recorded sounds with expected sounds, the notification to the user about what to do next, and the modification of automatic peg turners to work with the software are probably beyond what a PHOSITA would do. Furthermore, IP solved his own long-felt but unresolved need and the AUTOTUNE was copied by a professional musician who was amazed by how well the device worked.

Construing the claim for infringement analysis should be straightforward in this case as it seems relatively simple for even a lay person, let alone a PHOSITA. ET's product does not literally infringe because it does not contain "computer software for notifying the user if the sounds match." The product probably infringes under the doctrine of equivalents. The only differences of the devices are the respective displays, most of the source code, and the fact that ET's device doesn't display anything if the guitar is in tune. The displays function in the same manner (by obtaining information from the source code) and way (instructing the user) to achieve the same result (continued tuning or not). The source code also functions in the same manner (moving the turners or not) in the same way (comparing the sound to the ideal note) and to achieve the same result (tuning of the guitar). Finally, ET's absence

of display if the guitar is in tune is equivalent to a display because the function (notifying the user he can stop plucking) is achieved in the same way (signal) to achieve the same result (finished tuning). IP could probably successfully argue that “no signal,” in this context, is the same as a signal because it conveys the same message to the end user; the difference is no more than using different colored lights to display the same message.

III. Copyright Infringement

IP’s software is eligible for copyright protection because it is a “literary work” that was independently created by IP and shows a modicum of originality. The work has been fixed by the author in a sufficiently stable medium (the AUTOTUNE) for more than a transitory period. The work is fixed even if it requires mechanical aid to be read by human eyes. The work is not an idea but a specific expression of an idea. Software can probably be written in many different ways in different code languages to perform the same function so the idea and the expression are not merged. Nevertheless, because there are probably a limited number of ways to write software to provide the functions of the AUTOTUNE, the code might be limited to thin copyright protection. Finally, the code is not a useful article because it conveys information.

Factual copying is clear in this case. ET’s programmer took five lines of source code from IP’s code and used it in the finished product that was delivered to ET. Illicit copying is also clear in this case because ET’s programmer literally copied 5 lines of code from IP. The five lines made up a substantial part of IP’s work because the “comparing sounds” was the most important part of the source code and the most difficult to duplicate. ET’s programmer thus violated IP’s right of reproduction. Without literal copying, ET’s programmer would probably not be infringing because IP cannot copyright the idea or functionality of his code.

The programmer's only defense would probably be fair use. The programmer would not be liable for making a copy of the software in order to reverse engineer or study it. Sega. However, the programmer would still be liable for taking lines of code wholesale and including them in a commercial product. The purpose and character of the use was for a commercial endeavor and the copying was slavish, not transformative. Harper & Row; cf. Bill Graham Archives. The nature of the copyrighted work isn't fully creative but it is also not "factual." The nature of the work is functional, but even thin copyright protection guards against literal copying. The amount and substantiality of the copied work also weighs against the programmer. Although the five lines may be insubstantial in his software, the lines were a substantial part of IP's software because they go to the heart of work. Finally the effect on the market weighs heavily against the programmer because his copying supplants the need for IP's software on the market. Texaco; cf. Sony.

ET would be liable for any of his programmer's infringement based on respondeat superior or agent theories of liability. Independently, ET would be liable for infringing IP's right of distribution by selling his knock-off AUTOTUNE which contained the copied software.

IV. Conclusion

IP's strongest claim is copyright infringement. It is clear that ET's programmer literally copied the software for commercial purposes. ET would be liable because the programmer was working as ET's agent or employee to specifically recreate IP's software. Furthermore, ET distributed the copied software in his knock-off AUTOTUNE's. IP's patent infringement claim would probably reap the greatest rewards in terms of damages or injunctions. However, there are legitimate challenges to be made against the AUTOTUNE's novelty, obviousness, and disclosure (specifically enablement). A court could come out either way but it is still a strong argument against ET. Finally, the trade secret claim is probably the weakest. Much of it depends on whether IP took reasonable precautions to keep his

device and software secret, and because that is so fact sensitive, a jury might not agree with IP.

Furthermore, even if IP were to win, the damages would only be for the two-month "head start" ET got on reverse engineering because IP lost the trade secrets when he delivered the product to the public in November.

Question 2:

Antares Auto Tech's ("Antares") strongest claim would be trademark infringement caused by a likelihood of confusion. To show trademark infringement, Antares must show that 1) it owns a valid trademark, 2) IP used a trademark in commerce that caused a, 3) likelihood of confusion as to the source of goods.

AUTO-TUNE is a "word" used by Antares to identify their goods and used interstate commerce in connection with the sale of goods; thus, a trademark. Priority of use is clearly not at issue in this case. The mark is descriptive because the dictionary definitions of "automatically" and "tune" describe the function of the product being sold. Furthermore, it takes little imagination to discern what the product does. Competitors would theoretically need a way to describe software, devices, or products that change the pitch of sounds with minimal user input. Actual use by IP shows that the combination of "auto" and "tune" can be used in a variety of musical settings (voices as well as instruments). Zatarain's

As a descriptive mark, AUTO-TUNE would need to gain secondary meaning before it is protectable. The length & manner of use weighs in favor of Antares because the mark has been used for 15 years and has been involved in the popular music industry. The amount and manner of advertising might go against Antares because the product is probably not marketed to the general public but only to music professionals. Still, AUTO-TUNE might have secondary meaning in the industry. The volume of sales and the number of customers would probably weigh in favor of Antares because a lot of singers use their product. The AUTO-TUNE also has an established place in the market. Antares should argue that in the minds of the public, the primary significance of AUTO-TUNE is to identify the source of the product, not the product itself. Cf. Qualitex, Two Pesos, Wal-Mart. IP is clearly using AUTOTUNE in commerce by selling his guitar tuner under that name.

Assuming Antares's mark has secondary meaning, there is probably a likelihood of confusion in this case. Although Antares's mark is descriptive and thus not very strong, there is a pretty close

proximity of the goods. Sleekcraft. Both products are sold to people interested in creating music; however, the markets are not identical because one concerns tuning of instruments while the other manipulates vocal sounds. The similarity of the marks is incredibly high: both the sight, sound, and meaning are identical (a court would probably disregard the hyphen as it disregarded incorrect spellings in Zatarain's). Evidence of actual confusion might be easy to obtain for Antares and would be a strong indicator of the likelihood of confusion. The products probably have similar marketing channels although they may not be identical if Antares's product is marketed at professionals and IP's is marketed at amateurs. The type of goods and the degree of care likely to be exercised by the purchaser depends on the cost of the products, but such similar marks in such similar fields might fool even the most careful customers. IP's intent in selecting the mark would probably not weight against him because there is no evidence that he was doing anything more than describing his product. The likelihood of expansion of the product lines would also favor Antares because if a company makes products to tune voices, it would be a small leap of logic to make products that tune instruments.

IP could reasonably raise two defenses: genericness and fair use. Genericness is probably the strongest for IP because the term auto-tune has become pervasive in modern pop music. AUTO-TUNE is probably not generic ab initio (i.e. "software," "vocal corrector") so IP would need to meet the burden of proof by providing examples of uses of AUTO-TUNE that weren't referring to the source of goods in places like dictionaries, newspapers, or magazines. Murphy Door Bed Co. There is probably a good chance that IP will be able to show that the public has coopted the term AUTO-TUNE for uses beyond trademark. IP's other defense is not as strong. IP's use of AUTOTUNE is not classic fair use because IP is not using it to describe his product. True, the product does "auto-tune" guitars but IP is selling the product under that name, not using that description in brochures or underneath other trademarks. KP Permanent Make-up, Zatarain's. Furthermore, the high likelihood of confusion between the identical marks narrows IP's fair use claim. Finally, there is probably no nominative fair use or first amendment

claims because IP is not referring to Antares's product and is not parodying the product, reporting about the product or otherwise involving a communicative message.

Antares's trademark is probably not famous to qualify for dilution protection. Although the mark might be famous as a designation of source within the niche musical market, niche fame is not enough for dilution protection. Although the mark is probably widely recognized by the general consuming public, most people probably recognize the term as an audible effect or style of music instead of as the source of a specific product. See §43(c)(2)(A). However, if the mark is considered famous then dilution by blurring is readily apparent. The marks are identical, Antares is probably engaging in the exclusive use of the mark, most people recognize the term AUTO-TUNE, and there is a high likelihood of association between IP's mark and Antares's mark. Unlike the term "Amazon" which can refer to many different things, AUTO-TUNE probably only has one usage so the high likelihood of association is also likely to damage the distinctiveness of Antares's mark by damaging its ability to uniquely identify the source of the goods.